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TRANSCRIPT OF RECORD

SUPREME COURT OF THE UNITED STATES

OCTOBER TERM, 1925

No. 107

THE ALEXANDER MILBURN COMPANY, PETITIONER,

vs.

DAVIS-BOURNONVILLE COMPANY

ON A WRIT OF CERTIORARI TO THE UNITED STATES CIRCUIT COURT OF APPEALS FOR THE SECOND CIRCUIT

PETITION FOR CERTIORARI FILED JUNE 23, 1924

CERTIORARI GRANTED OCTOBER 20, 1924

(30,437)

(30,437)

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[fol. 1] **IN UNITED STATES DISTRICT COURT, SOUTHERN DISTRICT OF NEW YORK**

In Equity. No. —

DAVIS-BOURNONVILLE COMPANY, Plaintiff,

vs.

THE ALEXANDER MILBURN COMPANY, Defendant

BILL OF COMPLAINT

To the Honorable the Judges of the United States District Court in and for the Southern District of New York:

Davis-Bournonville Company, a corporation duly organized and existing under the laws of the State of New York and having offices at 149 Broadway, New York City and at Jersey City, New Jersey, brings this, its bill of complaint, against The Alexander Milburn Company, a corporation organized under the laws of the State of Maryland and having a regular and established place of business at 51 East 42 Street, New York City, New York, and says:

1. That this is a suit in equity arising under the Patent Laws of the United States.

[fol. 2] 2. That the plaintiff is informed and believes, and therefore alleges, that heretofore and prior to April 5, 1907, Camille Rodrigues-Ely and Emile Gauthier, then of the City of Paris, Republic of France, were the original, first and joint inventors of certain new and useful improvements in apparatus for perforating and cutting metals, which said invention or improvements were not known or used by others in this country before their invention or discovery thereof, or patented or described in any printed publication in this or any foreign country before their invention or discovery thereof, or more than two years prior to their application hereinafter mentioned for letters patent of the United States, and which had not been in public use or on public sale in this country for more than two years prior to their said application and which had not been abandoned; that said Camille Rodrigues-Ely and Emile Gauthier, being as aforesaid the original, first and joint inventors of said invention or improvements, did on or about April 5, 1907, file in the United States Patent Office an application in writing to the Commissioner of Patents for the grant of letters patent thereon and duly complied in all respects with the condition and requirements of the statutes of the United States, and that on the 24th day of December, 1907, letters patent of the United States, No. 874,666, were duly issued to the said Camille Rodrigues-Ely and Emile Gauthier in the name of the United States of America, under the [fol. 3] seal of the Patent Office and signed by the Commissioner of

Patents, whereby there are granted to them, their heirs or assigns for the term of seventeen years from the last-mentioned date the sole and exclusive right to make, use and sell said invention throughout the United States of America and the territories thereof, as by a certified copy of said letters patent in court to be produced will more fully appear; and that prior to the issuance of said patent the invention had not been patented or caused to be patented by the inventors or their legal representatives or assigns in any foreign country upon an application filed more than twelve months prior to the filing of the application in this country.

3. That the plaintiff is informed and believes, and therefore alleges, that heretofore and prior to April 5, 1907, Camille Rodrigues-Ely and Emile Gauthier then of the City of Paris, Republic of France, were the original, first and joint inventors of certain new and useful improvements in heating and welding metals, which said inventions or improvements were not known or used by others in this country, before their invention or discovery thereof, or patented or described in any printed publication in this or any foreign country before their invention or discovery thereof, or more than two years prior to their application hereinafter mentioned for letters patent of the United States and which had not been in public use or on public sale in this country for more than two years prior to their [fol. 4] said application and which had not been abandoned the said Camille Rodrigues-Ely and Emile Gauthier, being as aforesaid the original first and joint inventors of said invention or improvements, did on or about April 5, 1907, file in the United States Patent Office an application in writing to the Commissioner of Patents for the grant of letters patent thereon and duly complied in all respects with the conditions and requirements of the Statutes of the United States, and that on the 25th day of February, 1908, letters patent of the United States, No. 880,099 were duly issued to the said Camille Rodrigues-Ely and Emile Gauthier in the name of the United States of America under the seal of the Patent Office and signed by the Commissioner of Patents, whereby there was granted to them, their heirs or assigns for the term of seventeen years from the last-mentioned date the sole and exclusive right to make, use and sell said invention throughout the United States of America and the territories thereof, as by a certified copy of said letters patent in court to be produced will more fully appear; and that prior to the issuance of said patent the invention had not been patented or caused to be patented by the inventors or their legal representatives or assigns in any foreign country upon an application filed more than twelve months prior to the filing of the application in this country.

4. That, by mesne assignments in writing duly executed and delivered, namely an assignment from Camille Rodrigues-Ely and [fol. 5] Emile Gauthier, to the Davis-Bournonville Acetylene Development Company, a corporation of South Dakota, located at Pierre, South Dakota, dated October 15, 1908 and recorded in the United States Patent Office Liber F 80, at page 284 of Transfers of

Patents, and an assignment from Davis-Bournonville Acetylene Development Company to the plaintiff, dated September 20, 1917, and recorded in the United States Patent Office in Liber L 105, at page 420 of Transfers of Patents, plaintiff acquired the entire right, title and interest in and to said letters patent 874,666 and 880,099 and inventions, and is now the sole and exclusive owner of the same, as by said assignment or duly certified copy thereof ready to be produced will appear.

5. That plaintiff is informed and believes, and therefore alleges, that heretofore and prior to March 4, 1911, John Walter Whitford, then of Jersey City, in the County of Hudson, and State of New Jersey, was the original, first and sole inventor of certain new and useful improvements in welding and cutting apparatus which said invention or improvements were not known or used by others in this country before his invention or discovery thereof, or patented or described in any printed publication in this or any foreign country before his invention or discovery thereof, or more than two years prior to his application hereinafter mentioned for letters patent of the United States and which had not been in public use or on public [fol. 6] sale in this country for more than two years prior to his application and which had not been abandoned; that said John Walter Whitford, being as aforesaid the original, first and sole inventor of said invention or improvements, did on or about March 4, 1911, file in the United States Patent Office an application in writing to the Commissioner of Patents for the grant of letters patent thereon, and thereafter divided the same and did on or about January 31, 1912, file a divisional application, and duly complied in all respects with the conditions and requirements of the Statutes of the United States, that by an instrument in writing, dated January 1, 1912, and recorded in the United States Patent Office in Liber E 89, at page 15 of Transfers of Patents, the said John Walter Whitford assigned the entire right, title and interest in the invention of said divisional application to the Davis Bournonville Acetylene Development Company, a corporation organized under the laws of the State of South Dakota, located at Pierre, South Dakota, authorizing and requesting the Commissioner of Patents to issue the letters patent to said Company, as by said assignment or duly certified copy thereof ready to be produced will appear, and that on the 4th day of June, 1912, letters patent of the United States, No. 1,028,410 were duly issued to the Davis-Bournonville Acetylene Development Company in the name of the United States of America under the seal of the Patent Office and signed by the Commissioner [fol. 7] of Patents, whereby there was granted to it, its successors or assigns, for the term of seventeen years from the last-mentioned date, the sole and exclusive right to make, use and sell said invention throughout the United States of America, and territories thereof, as by a certified copy of said letters patent in court to be produced will more fully appear; and that prior to the issuance of said patent the invention had not been patented or caused to be patented

by the inventor or his legal representatives or assigns in any foreign country upon an application filed more than twelve months prior to the filing of the application in this country.

6. That, by an assignment in writing duly executed and delivered, from the said Davis-Bournonville Acetylene Development Company to the plaintiff, dated September 20, 1917 and recorded in the United States Patent Office in Liber F 105, at page 420 of Transfers of Patents, plaintiff acquired the entire right, title and interest in and to said letters patent 1,028,410 and inventions, and is now the sole and exclusive owner of the same, as by said assignment or duly certified copy there*fore* ready to be produced will appear.

7. That plaintiff has invested and expended large sums of money and has to great trouble in and about said inventions for the purpose of introducing the same into use and making the same profitable to itself and useful to the public, and that said inventions have been and are of great benefit and advantage to the plaintiff [fol. 8] and to the public, and that the public has generally acknowledged and acquiesced in plaintiff's rights under the patents, and plaintiff believes that it will realize and receive large gains and profits therefrom if infringements by said defendant and its confederates shall be prevented.

8. That plaintiff has given notice to the public that its torches are patented by marking the same patented with the dates and numbers of its patents.

9. Upon information and belief that said defendant, well knowing the premises, since the grants of said letters patent and after the assignments to the plaintiff as aforesaid and before the commencement of this suit, has infringed, and is now infringing, said patents within the Southern District of New York and elsewhere within the United States, by making, using and selling welding and cutting torches embodying the said patented inventions, and by selling such infringing torches for use in the Southern District of New York through its agent in said District, and threatens to continue to do so.

10. That the inventions of all said patents are susceptible of conjoint use and are so used in the torches complained of.

Wherefore plaintiff prays for an injunction perpetually restrain- [fol. 9] ing the defendant, its agents, servants and workmen, from further infringement of said patents, and for an accounting of damages and profits, and for such other and further relief as the equity of the case may require.

May it please your Honours to grant unto the plaintiff not only a writ of injunction, but also a writ of subpœna, to be directed to said defendant, The Alexander Milburn Company, commanding it

to appear and make answer to this bill of complaint, but not under oath, the oath being hereby expressly waived.

Davis-Bournonville Company. B. De Witt V. D. Reiley, Vice-President. Reily & Harrison, Solicitors for Plaintiff.

[fol. 10] Jurat showing the foregoing was duly sworn to by De Witt V. D. Reilley omitted in printing.

[fol. 11] IN UNITED STATES DISTRICT COURT

[Title omitted]

ANSWER—Filed March 30, 1922

The Answer of The Alexander Milburn Company, Defendant, to the Bill of Complaint of Davis-Bournonville Company, Plaintiff.

This defendant now and at all times hereafter saving and reserving unto itself all benefit and advantage of exception which can or may be had or taken to the many errors, uncertainties and other imperfections in the said plaintiff's bill of complaint contained, for answer thereto, or so much thereof as it is advised is material or necessary for it to make answer unto, answering says:

1. It is without knowledge whether plaintiff is a corporation organized and existing under the laws of the State of New York, having offices at 149 Broadway, New York City, New York, and at Jersey City, New Jersey; defendant admits that it is a corporation organized [fol. 12] under the laws of the State of Maryland and having a regularly established place of business at Grand Central Palace, New York, N. Y.

2. This defendant denies that heretofore and prior to April 5th, 1907, or at any other time or times, Camille Rodrigues-Ely and Emile Gauthier, within the meaning of the Statutes of the United States then in force, were the original or first or joint inventors of certain alleged improvements in apparatus for perforating and cutting metals and entitled to a patent thereon under the provisions of such statutes in manner and form as alleged in paragraph numbered 2 of the plaintiff's bill herein; this defendant admits that on the 24th day of December, 1907 Letters Patent No. 874,666 were issued to said Camille Rodrigues-Ely and Emile Gauthier, but it is without knowledge whether an application therefor was duly filed in the Patent Office, or whether all of the requirements of the Statutes then in force were complied with, and, therefore, denies the same.

3. This defendant denies that heretofore and prior to April 5th, 1908, or at any other time or times, Camille Rodrigues-Ely and Emile Gauthier, within the meaning of the Statutes of the United States then in force, were the original or first or joint inventors of certain alleged improvements in heating and welding metals and entitled to

a patent thereon under the provisions of such statutes in manner and [fol. 13] form as alleged in paragraph numbered 3 of the plaintiff's bill herein, this defendant admits that on the 25th day of February, 1908, Letters Patent No. 880,099, were issued to said Camille Rodrigues-Ely and Emile Gauthier, but it is without knowledge whether an application therefor was duly filed in the Patent Office, or whether all of the requirements of the statutes then in force were complied with, and, therefore, denies the same.

4. This defendant is without knowledge whether said Letters Patent, numbered 874,666 and 880,099, or either of them, were duly assigned to plaintiff as alleged in paragraph numbered 4 of the said bill, and is without knowledge whether plaintiff is now the owner thereof, as alleged in said bill, and, therefore, denies the same.

5. This defendant denies that heretofore and prior to March 4th, 1911, or at any other time or times, John Walter Whitford, within the meaning of the Statutes of the United States then in force, was the original or first or sole inventor of certain alleged improvements in welding or cutting apparatus and entitled to a patent thereon under the provisions of such statutes in manner and form as alleged in paragraph numbered 5 of the plaintiff's bill herein; and this defendant is without knowledge whether the said invention was, as alleged in said paragraph, assigned to the Davis-Bournonville Acetylene Develop- [fol. 14] ment Company; this defendant admits that on the 4th day of June, 1912, Letters Patent No. 1,028,410 for improvement in blow pipes were issued to the said Davis-Bournonville Acetylene Development Company, but it is without knowledge whether an application therefor was duly filed in the Patent Office, or whether all of the requirements of the statutes then in force were complied with, and therefore, denies the same.

6. This defendant is without knowledge whether the said Letters Patent No. 1,028,410, were duly assigned to plaintiff, and is without knowledge whether plaintiff is now the sole and exclusive owner of the same, and, therefore, denies the same.

7. This defendant is without knowledge whether the plaintiff has invented or expended large or any sums of money, or has been to great or any trouble in and about said inventions for the purpose of introducing the same into use, or making the same profitable to itself or useful to the public, or that said inventions have been, or are of great or any benefit or advantage to the plaintiff or to the public, or that the public has generally acknowledged or acquiesced in plaintiff's rights under the patents, or any of them, or whether plaintiff believes or has cause to believe that it will realize or receive large or any gains or profits therefrom if infringement by this defendant or its [fol. 15] confederates shall be prevented, and, therefore, denies the same.

8. This defendant denies that the plaintiff has given notice to the public, as required by law, that its torches are patented by marking the same "patented" with the dates or numbers of its patents.

9. This defendant denies that it has ever infringed upon any right of the plaintiff's under said Letters Patent, or any of them, and denies that it has ever committed any act of injury to the plaintiff herein.

10. This defendant denies that the inventions of all of said patents, or any two of them, are susceptible of conjoint use, and denies that they are so used in the cutting torches complained of, and says that the bill is therefore multifarious.

11. This defendant gives notice that at the trial of this suit, it will offer proof of the following special matters, and avers that by reason of said special matters and every one of them, said Letters Patent and every one of them are invalid and void:

A. As to the said Rodrigues-Ely and Gauthier Patent No. 874,666:

(a) That said Rodrigues-Ely and Gauthier were not the original or first inventors or discoverers of that which is patented by said pat-[fol. 16] ent No. 874,666, or any material or substantial part thereof, but that, on the contrary, prior to their supposed invention or discovery, the things patented by said patent, and all material and substantial parts thereof, had been patented and described in each of the following letters patent, and that the description contained in each of the same had been published as a printed publication; the name of the patentee of each of said letters patent, and the number and date when granted and when published as a printed publication, being as follows, to wit:

United States Letters Patent

Number	Date	Name
135,895	Feb. 18, 1873	A. E. Delouest.
163,087	May 11, 1875	L. J. Marey.
703,940	July 1, 1902	H. A. E. Menne.
705,418	July 22, 1902	H. A. E. Menne.
713,421	Nov. 11, 1902	Fouche.
804,002	Nov. 7, 1905	E. Fouche.
808,382	Dec. 26, 1905	F. Jottrand.
831,078	Sept. 18, 1906	F. Jottrand.

and in the specifications and drawings filed in the United States Patent Office with the applications for said Letters Patent, and each of them.

[fol. 17] French Letters Patent

Number	Date published	Name
349,132.....	May 12, 1905.....	Societe Anonyme L'Oxhydrique Francaise.
344,531.....	Nov. 7, 1904.....	P. Dumesnil.
325,403.....	Oct. 18, 1903.....	Fouche.
Addition 1801 (to 325,403).....	Oct. 24, 1903.....	—— ——.
Addition to 2076 (to 325,403).....	Dec 16, 1903.....	—— ——.
Addition 2319 to 325,403).....	Mar. 3, 1904.....	—— ——.
333,119.....	July 21, 1906.....	E. Odam.
364,466.....	Aug. 3, 1906.....	Campagnie Francaise de Acetylene.

German Letters Patent

Number	Date published	Name
189,725.....	Nov. 11 1905.....	R. H. Katz.

(b) That prior to any supposed invention or discovery by said [fol. 18] Rodrigues-Ely and Gauthier of that which is patented by said patent No. 874,666, the things patented thereby and all material and substantial parts thereof had been described, printed and published in the following printed publications, to-wt:

The London & Edinburgh Philosophical Magazine and Journal of Science, Volume 11, January to June, 1833, pages 57 to 60.

Circular of L' Oxhydrique Francaise, entitled "Decoupage Rapide de l' Acier, du Fer, etc. Paris, January 1906."

(c) That prior to any supposed invention or discovery by said Rodrigues-Ely and Gauthier, the things patented by the said patent No. 874,666, and all material and substantial parts thereof, had been invented and used by and known to and in public use and sale in the United States by each of the following named persons, the residence of each and the place where he used the same, being stated in connection with his name, to-wit:

John Harris and the Harris Calorific Company, of Cleveland, Ohio, at said Cleveland, and elsewhere in the United States.

(d) That said Letters Patent No. 874,666 did not disclose or show any patentable invention whatsoever in view of the state of the art in welding and cutting torches as known and practiced at the time said Rodrigues-Ely and Gauthier made their alleged invention, described in said letters patent, and particularly in view of the then generally [fol. 19] known and used burners of the ordinary Argand, Daniell and Bunsen type, and of the above cited prior patents, publications and prior uses, and the hereinafter recited publications illustrating the state of the art.

(c) That the alleged invention of Rodrigues-Ely and Gauthier, as set forth in said letters patent No. 874,666, is inoperative and of no useful purpose and has not been and could not be successfully used, and that the same is not in said patent described in such full, clear, concise and exact terms as to enable any person skilled in the art to which it appertains, or to which it most nearly appertains to make or use the same, nor is there in said patent particularly pointed out or claimed the part, improvement or combination which is claimed as the alleged invention or discovery.

B. As to said Rodrigues-Ely and Gauthier patent No. 880,099:

(a) That said Rodrigues-Ely and Gauthier were not the original or first inventors or discoverers of that which is patented by said patent No. 880,099, or any material or substantial part thereof, but that, on the contrary, prior to their supposed invention or discovery, the things patented by said patent, and all material and substantial parts thereof, had been patented and described in each of the following letters patent, and that the description contained in each of the same had been published as a printed publication; the name of the patentee of each of said letters patent, and the number and date [fol. 20] when granted and when published as a printed publication, being as follows, to-wit:

United States Letters Patent

Number.	Date.	Name.
140,465	July 1, 1873	J. Burns.
163,087	May 11, 1875	L. J. Marcy.
165,095	June 29, 1875	W. R. Hanks.
517,870	Apr. 10, 1894	W. Lawson.
597,057	Jan. 11, 1898	E. J. Dolan.
589,342	Aug. 31, 1897	E. J. Dolan.
629,061	July 18, 1899	G. & J. W. Bray.
644,799	Mar. 6, 1900	W. Hahn.
713,421	Nov. 11, 1902	Fouche.
804,002	Nov. 7, 1905	E. Fouche.
808,382	Dec. 26, 1905	F. Jottrand.

and in the drawings and specifications filed in the United States Patent Office with the application for said Letters Patent and each of them.

British Letters Patent

Number.	Date.	Name.
12,750	Nov. 7, 1905	P. Dumesnil.
14,306	July 13, 1901	Garuti.

French Letters Patent

Number.	Date published.	Name.
344,531	Nov. 7, 1904	Dumesnil.
363,119	July 21, 1906	E. Odam.
367,647	Nov. 6, 1906	Societe Anonyme per Imprese d'-Illuminazione.

[fol. 21]

German Letters Patent

Number.	Date.	Name.
189,725	Nov. 11, 1905	R. H. Katz.

(b) That prior to any supposed invention or discovery by said Rodrigues-Ely and Gauthier of that which is patented by said patent No. 880,099, and more than two years prior to the application for said patent, the things patented thereby and all material and substantial parts thereof had been described, printed and published in the following printed publications, to-wit:

Acetylene, by V. B. Lewes, New York, The Macmillan Company, 1900; pages 534 to 564.

Lighting by Acetylene, by W. E. Gibbs, New York, D. Van Nostrand Company, 1898; pages 95 to 102.

Rapport due Bureau Veritas de Paris, entitled "La Soudure Autogene des Metaux, Paris, 7 July, 1905".

Circular of L'Oxhydrique Francaise, entitled "La Soudure Autogene des Metaux, Conditions pour obtenir une bonne Soudure, Paris, 1906".

Article by Andre Beltzer in Electro Chemical and Metallurgical Industry, New York, for July 1906, entitled "Autogenous Welding of Metals by the Oxy-Acetylene Blowpipe and a new Method of Generating Oxygen."

(c) That said Letters Patent, No. 880,099, did not disclose or show any invention whatsoever in view of the state of the art in [fol. 22] welding and cutting torches as known and practiced at the time said Rodrigues-Ely and Gauthier made their alleged invention, described in said Letters Patent, and particularly in view of the general use in the United States of acetylene lighting apparatus, and of the above cited prior patents and publications, and the hereinafter recited publications illustrating the state of the art.

(d) That the alleged invention of Rodrigues-Ely and Gauthier, as set forth in said Letters Patent No. 880,099 is inoperative and of no useful purpose and has not been and could not be successfully used and that the same is not in said patent described in such full, clear, concise and exact terms as to enable any persons skilled in the art to which it appertains or to which it most nearly appertains to make or use the same, nor is there in said patent particularly pointed out or claimed the part, improvement or combination which is claimed as the alleged invention or discovery.

C. As to said Whitford patent No. 1,028,410:

(a) That the said John Walter Whitford was not the original, first or sole inventor or discoverer of that which is patented by said patent No. 1,028,410, or any material or substantial part thereof, but that, on the contrary, prior to his supposed invention or discovery, the things patented by said patent, and all material and substantial parts thereof, had been patented and described in each of the follow-
[fol. 23] ing letters patent, and that the description contained in each of the same had been published as a printed publication; the name of the patentee of each of said letters patent, and the number and date when granted and when published as a printed publication, being as follows, to-wit:

United States Letters Patent

Number.	Date.	Name.
935,458	Sept. 28, 1909	R. E. Bruckner.
992,156	May 16, 1911	H. Brousseau.
831,078	Sept. 18, 1906	F. Jottrand.
969,875	Sept. 13, 1910	C. Johnson.
969,487	Sept. 6, 1910	R. W. Magna & G. W. Carpenter
981,342	Jan. 10, 1911	J. F. Williams.
853,634	May 14, 1907	J. Harris.
894,195	July 28, 1908	C. Delcampe.
931,623	Aug. 17, 1909	E. S. Kimball.

and in the specifications and drawings filed in the United States Patent Office with the applications for said Letters Patent and each of them.

British Letters Patent

Number.	Date.	Name.
1,056	Jan. 15, 1907	Wiss.
20,915	Sept. 20, 1907	E. Odam.

[fol. 24]

French Letters Patent

Number.	Date.	Name.
349,132	Nov. 19, 1904	Societe Anonyme L'Oxhydrique Francaise.

and the various certificates of addition thereto numbered 5,889; 6,057; 6,215; 6,297; 7,610; 7,613; 7,614; 7,615, 7,617; 8,758; 8,759 and 9,375, the last numbered certificate being dated August 3, 1907.

Number.	Date.	Name.
373,368	May 13, 1907	Wiss.
363,119	July 21, 1906	E. Odam.
388,776	Aug. 21, 1908	M. Parizot.
409,757	Apr. 30, 1910	Societe Air Liquide Belge.

German Letters Patent

Number.	Date.	Name.
208,430	Jan. 28, 1908	Messer & Co.
229,346	Nov. 5, 1909	J. Ammon.

(b) That prior to any supposed invention or discovery by the said John Walter Whitford of that which is patented by said Patent No. 1,028,410, and more than two years prior to the application for said patent, the things patented thereby and all material and substantial [fol. 25] parts thereof had been described, printed and published in the following printed publication to-wit:

American Machinist for December 30th, 1909, article by W. I. Reich, entitled "A new Fusion Welding Torch and how to Weld Different Metals."

Soudre Autogene et Aluminothermie by E. Chatelain, published in 1909 at Paris, France, pages 61 to 86.

(c) That prior to any supposed invention or discovery by the said John Walter Whitford, the things patented by the said patent No. 1,028,410, and all material and substantial parts thereof, had been invented and used by and known to and in public use and sale in the United States by Frederic E. Wright of Richmond Hill, New York, such use having been made at Richmond Hill, Long Island, New York and elsewhere in the United States.

(d) That said Letters Patent No. 1,028,410, did not disclose or show any invention whatsoever in view of the state of the art in blow pipes as known and practiced at the time the said John Walter Whitford made his alleged invention, described in said letters patent, and particularly in view of the above cited prior patents, publications and prior uses, and the hereinafter recited publications illustrating the state of the art.

[fol. 26] (e) That the patentee, John Walter Whitford, unjustly obtained said Letters Patent numbered 1,028,410 for that which was in fact invented by Frederick E. Wright of Richmond Hill, Long Island, who was using reasonable diligence in adapting and perfecting the same.

12. The defendant gives notice that it will at the trial of this cause refer to the following, among other matters, in illustration of the state of the art prior to the several patents in suit:

German patent of the Coln-Musener Bergwerke-Aktien Verein, No. 137,588, dated 26 May 1901, published 1 December, 1902.

German patent of the Coln-Musener Bergwerks-Aktien Verein, No. 140,148, dated 14 January 1902, addition to German patent 137,588.

German patent of the Coln-Musener Bergwerks-Aktien Verein, No. 140,149, dated 14 January 1902, published 13 March, 1903, addition to German patent 137,588.

German patent of the Coln-Musener Bergwerks-Aktien Verein, No. 143,640, dated June 27, 1902, published 13 July, 1903, addition to German patent 137,588.

German patent of the Coln-Musener Bergwerks-Aktien Verein, No. 147,541, dated 20 April, 1902, published 30 November, 1903, addition to German patent 137,588.

British patent of Boult No. 14,146 of 1901, dated 11th July, 1901.

The London and Edinburgh Philosophical Magazine and Journal of Science, Vol. II January to June, 1833, pages 57 to 60.

[fol. 27] First Principles of Chemistry by Benjamin Silliman, Philadelphia, H. C. Peck and Theo. Bliss, 1856; pages 244 to 246.

Elements of Chemistry, by Alonzo Grey, New York, Mark H. Newman & Co., 1848; pages 160 and 161.

Zeitschrift des Vereines Deutscher Ingenieure, 483, July-September, 1904, 3 September 1904, pages 1353 and 1354.

French patent of the Societe Anonyme L' Oxhdrique Francaise No. 349,132, dated 18 January 1906.

Memoires et Comptes Rendus des Travaux de la Societe des Ingenieurs Civils de France, Paris, Hotel de la Societe 1905, Bulletin de Novembre 1905, pages 644,660.

Exposition Universelle de Liege 1905, Note sur les Appareils de la Societe Anonyme l' Oxhydrique, published by the Societe Anonyme l' Oxhydrique, Brussels, 1905.

Circulars of the Compagnie Universelle d' Acetylene entitled Eclairage a l' Acetylene and Soudure Autogene des Metaux par le Chalumeau Oxy-Acetylenigue, published by the said Company at Paris, October, 1905.

Circular of l' Oxhydrique Societe Anonyme, entitled Hydrogene et Oxygene, Soudure Autogene des Metaux, Hautes Temperatures, Brussels, 1905.

Circular of l' Oxhydrique Francaise, entitled La Soudure Autogene des Metaux, Conditions pour Obtenir une bonne Soudure, Paris, 1906.

Circular of l' Oxhydrique Francaise, entitled Decoupage Rapide de l' Acier, du Fer, etc. Paris, January 1906.

[fols. 28 & 29] Circular published by Champy Freres at the Exposition Universelle de Liege 1905, entitled "Schweissverfahren: System Fouche.

Soudre Autogene et Aluminothermie by Chatelain, published at Paris 1909, particularly pages 61 to 86 inclusive.

Revue de la Souder Autogene, Paris, No. 15, May, 1910, page 149; No. 16, June, 1910, page 159; No. 18, Aug., 1910, page 179.

This defendant therefore prays:

(a) That the bill of complaint herein be dismissed with costs to be taxed against the plaintiff.

(b) For such other and further relief as the circumstances of the case may require.

The Alexander Milburn Company, by A. Parker Smith, Its Solicitor. Watson, Coit, Morse & Grindle, Charles S. Grindle, of Counsel.

Filed March 30, 1922.

[fol. 30] IN UNITED STATES DISTRICT COURT

[Title omitted]

AMENDMENT TO ANSWER

Now comes defendant and amends its Answer in the above entitled case as follows:

1. By adding to the list of U. S. patents in paragraph A, subparagraph (a), page 5 the following:
124,869, March 19, 1872, A. W. Wilkinson.

2. By adding to the list of French patents in paragraph A, subparagraph (a) the following:
French patent of Addition 6297 Societe Anonyme L' Oxhydrique Francaise.
French patent of Addition 6057 Societe Anonyme L' Oxhydrique Francaise.
French patent No. 349,132 Societe Anonyme L' Oxhydrique Francaise.

[fol. 31] 3. Insert after paragraph (b) page 9, the following:
That the patentees Rodrigues-Ely and Gauthier were not the original and first inventors or discoverers of any material or substantial part of the thing patented by said Letters Patent No. 850,099, but unjustly obtained said Letters Patent for that which was invented by the following persons:
Cyrille Delcampe of Quincy, Mass. who filed application Ser. No. 362,230, March 13, 1907, which eventuated into patent No. 847,492, December 24, 1907, who was using reasonable diligence in adapting and perfecting the same.
John Harris of Cleveland, Ohio, who filed application Ser. No. 284,596, October 27, 1905, which eventuated into patent No. 853,634, May 14, 1907, who was using reasonable diligence in adapting and perfecting the same.

4. By adding to the list of U. S. patents in paragraph C, subparagraph (a) page 10 the following:
677,686, July 2, 1901, J. McLoughlin.
140,165, June 24, 1873, J. & T. D. Richardson.

By adding to the list of French Letters patent on page 11 the following:

406,626, Feb. 4, 1910, Societe Anonyme L'Oxhydrique Francaise.

5. By inserting after sub-paragraph (c) page 12 the following:

[fol. 32] That prior to any supposed invention or discovery by the said John Walter Whitford, the things patented by said patent No. 1,028,410 and all material and substantial parts thereof, had been invented and used by, and known to, and in public use and on sale in the United States by the following persons and at the following places:

William I. Reich, of New York, N. Y., who filed application Ser. No. 479,131 on February 20, 1909 which eventuated into patent No. 1,097,263, May 19, 1914, such use and sale having been made in New York, N. Y. and elsewhere in the United States.

6. By substituting for sub-paragraph (e) page 12:

(e) That the patentee, John Walter Whitford, was not the original and first inventor or discoverer of any material or substantial part of the thing patented by said Letters Patent No. 1,028,410, but unjustly obtained said Letters Patent for which was in fact invented by the following persons:

William I. Reich of New York, N. Y., who filed application Ser. No. 479,131, February 20, 1909, which eventuated into patent No. 1,097,263, May 19, 1914, who was using reasonable diligence in adapting and perfecting the same;

Harry Brousseau of New York, N. Y., who filed application Ser. No. 501,865 on June 12, 1909, which eventuated into patent No. 992,156, May 16, 1911, who was using reasonable diligence in adapting and perfecting the same.

[fols. 33-141] Harlan A. Clifford of Jersey City, N. J. who filed application Serial No. 605,741, January 31, 1911, which eventuated into patent 1,016,613, February 6, 1912 who was using reasonable diligence in adapting and perfecting the same.

Frederic E. Wright, of Richmond Hill, Long Island, N. Y., who filed application Serial No. 604,972, on January 27, 1911, which eventuated into patent No. 1,060,393, April 29, 1913, who was using reasonable diligence in adapting and perfecting the same.

The Alexander Milburn Company, by A. Parker Smith, Solicitor. J. A. Watson, of Counsel.

[fol. 142] IN UNITED STATES DISTRICT COURT

REBUTTAL PROOFS

JOSEPH F. BRANDENBERG, called as a witness on behalf of the plaintiff in rebuttal, having been duly sworn, testified as follows:

Direct examination by Mr. Edmonds:

Q. 1. Mr. Brandenburg, you acted as patent solicitor for the Davis-Bournonville Company through a number of years, I believe?

A. Yes, I became connected with the Davis-Bournonville Company as its patent solicitor shortly after the company was formed or shortly after the enterprise was started and continued through.

Q. 2. You prepared and filed the application for the Whitford patent in suit?

A. Yes.

Q. 3. What is the patent that I now hand you?

A. This is a certified Patent Office copy of the application for that patent.

Q. 4. That particular file wrapper is the file wrapper of patent No. ——.

A. 1,028,166.

[fol. 143] Q. 5. And the patent in suit is the Whitford patent 1,028,410?

A. Yes. An application was filed originally which covered the subject matter of patents 1,028,410 and 1,028,166, and that application was divided and 1,028,410, eventuated from the divisional application.

Q. 6. And what was the date of filing the parent application?

A. The date of filing of the parent application was March 4, 1911.

Mr. Edmonds: I offer in evidence this certified copy of the file wrapper of the parent application.

(Marked Plaintiff's Exhibit No. 22.)

By Mr. Edmonds:

Q. 7. At whose instruction did you prepare and file the application for the original parent patent?

A. That was at the instruction of the Davis-Bournonville Company and I am quite sure that the instruction came from Mr. Davis personally.

Q. 8. What did you do preliminary to preparing this application?

A. I went to the shop in Jersey City and spent some time there studying the invention and going over the matter with those there and I ascertained who was the inventor and I proceeded to prepare the application in the regular way.

Q. 9. You know, as a matter of fact, don't you, that Mr. Clifford whose patent was offered in evidence was an employee of the Davis-[fols. 144-200] Bournonville Company at about that time? I refer to the Clifford patent No. 1,016,613 granted to Harlan A. Clifford?

IN UNITED STATES DISTRICT COURT

Plaintiff's Exhibit No. 4
Whitford Patent 1,028,410

201

202

J. W. WHITFORD.

BLOWPIPE.

APPLICATION FILED JAN. 31, 1912.

1,028,410.

Patented June 4, 1912.

Fig. 3.

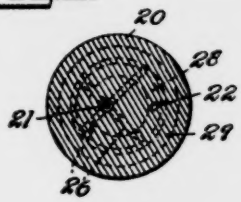


Fig. 1.

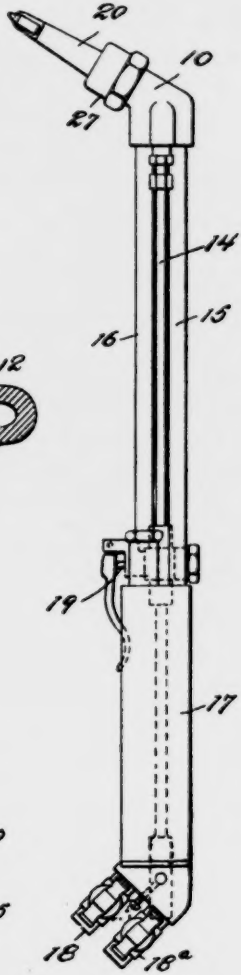


Fig. 2.

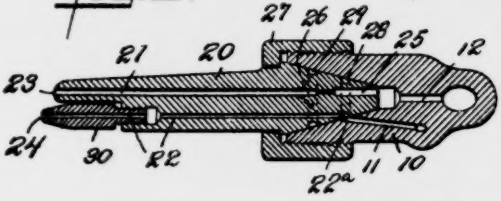
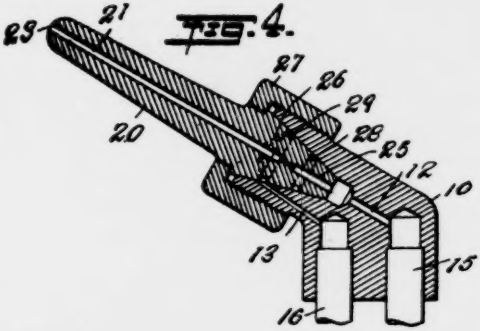


Fig. 4.



Witnesses:
G. Robert Thomas
Whitford Russell

Inventor
John Walter Whitford
By his Attorney
J. B. Lambert

UNITED STATES PATENT OFFICE.

JOHN WALTER WHITFORD, OF PONTIAC, RHODE ISLAND, ASSIGNOR TO DAVIS-BOURNONVILLE ACETYLENE DEVELOPMENT COMPANY, OF PIERRE, SOUTH DAKOTA, A CORPORATION OF SOUTH DAKOTA.

BLOWPIPE.

1,028,410. Specification of Letters Patent. Patented June 4, 1912.

Original application filed March 4, 1911, Serial No. 612,189. Divided and this application filed January 31, 1912. Serial No. 674,496.

To all whom it may concern:

Be it known that I, JOHN WALTER WHITFORD, a citizen of the United States, and resident of 23 East street, Pontiac, county of Kent, and State of Rhode Island, have invented certain new and useful Improvements in Blowpipes, of which the following is a specification.

This invention relates to apparatus for cutting metals by means of a jet of oxygen accompanied by a jet or jets of combustible mixture affording a heating flame or flames for bringing the metal to a temperature at which it is acted upon by the oxidizing jet to effect a rapid cutting or puncturing. The success of cutting operations performed with such apparatus depends directly on the maintenance of exact proportions between the combustible and combustion-supporting gases forming the heating jet, and on varying the heating and cutting jets appropriately for different kinds or grades of work. The size of the jets and the quantities of gases consumed depend on the sizes of the passages and the pressures available or expedient; and therefore it has been determined that for work of different kinds jet orifices or passages of different sizes should be employed. Furthermore, a change in the size of the heating jet orifice or passage should be accompanied by a change in the provisions or structures for effecting mixing of the gaseous constituents, with a view to preserving the fixed ascertained ratio between the constituents and securing the proper velocity for the jet. To secure these results complete separate apparatuses may be provided, each adapted to perform a certain kind or grade of work; or a plurality of interchangeable parts containing jet passages and orifices and mixing provisions may be provided for use with a common body or supporting part, containing supply conduits. The latter is more desirable, but it is an important desideratum to prevent leakage or improper mixing of the gases, else the relations essential to successful results are destroyed, and to guard against error in securing the proper combination for any particular piece of work, which would obviously have the same disastrous result. For these reasons, and also in order that there may be a maximum of convenience in using the apparatus, it is very desirable to avoid the necessity of handling a considerable number of parts in assembling or disassembling and in changing or adjusting the apparatus for different kinds of work. The various kinds of cuttting apparatus heretofore devised have been defective in one or more of these particulars.

It is the object of this invention to provide an apparatus of the fewest parts and of maximum convenience and reliability.

The apparatus comprises a head or suitable support or body part, and a unitary removable and replaceable tip socketed into the head. This unitary tip has in it both a heating jet passage, or passages, and a cutting jet passage, with delivery orifices at the front end of the tip. The cutting jet passage has an inlet at the rear end of the unitary tip, and the heating jet passage has separate inlets at the rear end of the tip for the two kinds of gases to form the heating mixture. The head is provided with three separate conduits for the gas for cutting and the combustible and combustion-supporting gases, these conduits communicating with the three kinds of inlets in the unitary gas-mixing and jet-delivering tip. The heating and cutting jet passages with their delivery orifices and the inlets are all properly proportioned in each tip, and are all changed with each exchange of tips. A series of tips differently proportioned as to their parts for different kinds of work are preferably provided for each head. Furthermore, the tip and head are provided at their socketed joint with coöperating sealing seats which prevent all improper mixing of the gases due to leakage as well as loss of the gases into the atmosphere. Thus there is only one tight joint to be effected at each change. In effect these seats afford seals between the several gases and between the gases and the atmosphere at the joint, and these seals are preferably conical, having the same generatrix, or of other form so that all of the seals must be effected simultaneously and of equal tightness. The seals, when conical in form, are of a conicity greater than the critical angle of sticking, so that the tip cannot be jammed in the head no matter how hard the head and tip may be forced together by a screw union or other holding means.

The gases preferably employed are oxygen for the cutting jet, and oxygen and acetylene for the heating jet.

In the accompanying drawings illustrating the invention: Figure 1 is a side elevation of one form of hand torch in which the invention may be embodied; Fig. 2 is a longitudinal section through the head and unitary tip, in a plane at right angles to that of Fig. 4; Fig. 3 is an enlarged cross-section through the rear conical part of the tip, looking toward the rear extremity thereof, certain annular channels and inlet passages being indicated by dotted lines; and Fig. 4 is a vertical longitudinal section through the head and tip.

While the invention is shown embodied in a hand torch, it will be understood that this is by way of illustration only and that the structure is equally applicable to mechanically supported, guided or operated cutting apparatus.

The head 10 may be of any suitable form. It is here shown of a simple construction suitable for hand torches, but it may be of a form suitable for mechanical or "automatic" apparatus. It is preferably a simple casting, and contains three separate gas conduits 11, 12 and 13, for oxygen for cutting, oxygen for the heating jet and acetylene for the heating jet, respectively. These conduits are continuations of conduits or pipes, 14, 15 and 16, which with the casing 17 constitute a suitable handle for the torch. Suitable valves 18, 18ª and 19 control these supply conduits, which in operation are connected with sources of gas supply by flexible tubing. The sources of gas supply for the three conduits are preferably all distinct, and the gases will be delivered under appropriate pressures.

20 is the unitary tip, which contains all the passages, inlets and discharge orifices necessary to the delivery of the heating and cutting jets and to the formation of the heating mixture, constituting a single member which is applied to and removed from the head as a unit. It has a longitudinal heating jet passage 21 and a longitudinal cutting jet passage 22, terminating at the forward end of the tip in delivery orifices 23 and 24, spaced laterally from each other at an appropriate distance, and preferably though not necessarily in parallel relation. The cutting jet orifice is preferably in a plane nearer the work than the heating jet orifice, in accordance with established practice. The cutting jet passage 22 has an inlet 22ª in the rear portion of the unitary tip communicating with the conduit 11 in the head. The heating jet passage 21 has two kinds of inlets in the rear part of the unitary tip, there being separate inlets for the two kinds of gases to form the combustible mixture. The arrangement of the inlets or inlet passages may be varied as desired. A desirable arrangement is illustrated, in which there is an oxygen inlet 25 opening through the rear extremity of the tip in alinement with the passage 21, and lateral inlets or passages 26 for acetylene, opening through the side of the rear portion of the tip and delivering into the passage 21 beyond the inlet 25. There may be any suitable number of acetylene inlets, four being indicated in Fig. 3; and they may be inclined to the passage 21. The inlet 25 communicates with the conduit 12 in the head, and the inlets 26 with the conduit 13. The several passages, orifices and inlets in each tip will be proportioned in accordance with the principles known in the art and the particular result desired to be obtained.

The head 10 is socketed for the reception of the tip 20 and this socket and the rear portion of the tip which enters it are formed with smooth sealing seats or surfaces preventing all improper mixing of the gases by leakage or escape thereof into the atmosphere. Thus, it will be seen that in changing the cutting and heating jets for different kinds of work it is necessary to effect only one gas-tight joint. Preferably this joint is a conical one, the conicity being such that the tip cannot become immovably jammed in the head, irrespective of the degree of pressure applied by the separate screw coupling 27, or other suitable uniting means. The lateral inlets 22ª and 26 open through the conical sealing portion of the tip, and ample areas of the sealing surfaces on the head and tip are afforded between these inlets and between them and the inlet 25 on the one hand and the front end of the head on the other, to insure that there can be no leakage of the gases either into the atmosphere or so as to mingle with each other before entering the tip. Preferably annular channels 28 and 29 are formed in the conical sealing surface of the tip, for the purpose of establishing communication at all times between the inlets 22ª and 26 and their supply conduits 11 and 13.

The unitary tip 20 may be of one piece, but I have illustrated a delivery nozzle 30 for the cutting jet formed of a separate piece from the main body of the tip and secured thereto, as by screw-threads, so as to form a part thereof. This is desirable because the projecting cutting jet nozzle may become burned or otherwise damaged, in which case it may be renewed without discarding the whole tip.

The manner of cutting metals by means of heating and cutting jets is well understood and need not be discussed here.

While I have illustrated and described one embodiment of my invention with considerable particularity, it will be understood, that numerous changes may be made

without departing from the spirit of the invention.

This invention constitutes a division of my application filed March 4, 1911, Serial No. 612,189, for welding and cutting apparatus, which covers certain features applicable to both welding and cutting apparatus and the specific claims of which are limited to welding apparatus.

What I claim as new is:

1. Apparatus for cutting metals by means of gases, comprising a socketed head and a removable and replaceable tip having a readily separable conical sealing joint, and means for holding them together, said head having three separate conduits opening into its socket for gases to form a combustible mixture and oxygen for cutting, respectively, and said tip having heating jet and cutting jet passages, said heating jet passage having separate inlets communicating with two of the conduits in the head and said cutting jet passage having an inlet communicating with the third conduit, two kinds of these inlets opening through the conical portion of the tip which with the conical surface of the socket affords gas-tight seals preventing leakage of the three kinds of gases.

2. Apparatus for cutting metals by means of gases, comprising a socketed head and a removable and replaceable tip having a readily separable conical sealing joint, and means for holding them together, said head having three separate conduits opening into its socket for gases to form a combustible mixture and oxygen for cutting, respectively, and said tip having heating jet and cutting jet passages, said heating jet passage having separate inlets communicating with two of the conduits in the head and said cutting jet passage having an inlet communicating with the third conduit, one inlet opening through the rear extremity of the tip and the other two kinds of these inlets opening through the conical portion of the tip which with the conical surface of the socket affords gas-tight seals preventing leakage of the three kinds of gases.

3. Apparatus for cutting metals by means of gases, comprising a socketed head and a unitary removable and replaceable tip, said head having three separate conduits for gases to form a combustible mixture and oxygen for cutting, respectively, and said unitary tip being provided therein with a cutting jet passage having a delivery orifice at the forward part of the tip and communicating at the rear part of the tip with the corresponding conduit in the head and with a heating jet passage having a delivery orifice at the forward part of the tip and separate inlets in the rear part of the unitary tip communicating with the corresponding conduits in the head, the head and tip being provided at the joint between the two with coöperating sealing seats which prevent leakage and all improper mingling of the gases.

4. In a device of the character described, a tip having a longitudinal mixing passage with a discharge orifice and separate inlets at the rear for leading different kinds of gases to said passage, said tip being provided also with an independent longitudinal passage, a socketed head provided with separate conduits for the two kinds of gases for combustion communicating respectively with the two kinds of inlets, said head being provided also with a conduit for supplying gaseous fluid to said independent longitudinal passage, said tip and head being provided with similar external and internal conical seats for sealing, there being separate annular passages formed between said conical seats for placing said independent longitudinal passage and one kind of said inlets, respectively, in communication with their conduits in the head.

5. In a device of the character described, a tip having a longitudinal mixing passage with a discharge orifice and a longitudinal inlet and lateral inlets for leading different kinds of gases to said passage, said tip being provided also with an independent longitudinal passage discharging at the forward part of the tip, and a socketed head provided with separate conduits for the two kinds of gases for combustion opening, respectively, through the rear and side of said socket and communicating with said lateral and longitudinal inlets, said head being provided with another side conduit for supplying gaseous fluid to said independent longitudinal passage, said tip and head being provided with similar external and internal conical seats for sealing, there being separate annular passages formed between said conical seats for placing said independent longitudinal passage and the lateral inlets, respectively, in communication with their conduits in the head.

6. A device of the character described, comprising a head and a removable and replaceable tip carried and supplied thereby, said head and the rear part of the tip having coöperating sealing surfaces formed thereon, said tip being provided with a mixing passage, a discharge orifice therefor at the forward part of the tip and inlets to the mixing passage for the two kinds of gases to be mixed leading from said rear part of the tip, said tip having also therein a longitudinal passage which is independent of said mixing passage and has its inlet at said rear part of the tip and its outlet at the forward part of the tip, and said head being provided with three separate conduits which communicate, respectively, with the two kinds of inlets to the mixing passage and the

inlet to said independent passage, said sealing surfaces forming seals between the gases from the three conduits where the conduits communicate with the said inlets and also between the gases and the atmosphere.

7. A device of the character described, comprising a head and a removable and replaceable tip carried and supplied thereby, said head and the rear part of the tip having coöperating sealing surfaces formed thereon, said tip being provided with a mixing passage, a discharge orifice therefor at the forward part of the tip and inlets to the mixing passage for the two kinds of gases to be mixed leading from said rear part of the tip, said tip having also therein a longitudinal passage which is independent of said mixing passage and has its inlet at said rear part of the tip and its outlet at the forward part of the tip, and said head being provided with three separate conduits which communicate, respectively, with the two kinds of inlets to the mixing passage and the inlet to said independent passage, said sealing surfaces having spaced annular communication-establishing grooves formed therein, and portions of the said surfaces at opposite sides of the grooves constituting seals between the different kinds of gases and between the gases and the atmosphere.

8. A device of the character described, comprising a head and a removable and replaceable tip having a mixing passage with an outlet at the forward part of the tip and inlets at the rear part of the tip for the two kinds of gases to be mixed, said tip having also a longitudinal passage independent of the mixing passage having an inlet at the rear part of the tip and discharging at the forward part thereof, the head being provided with three conduits for supplying the inlets to the mixing passage and said independent passage.

In witness whereof I have signed my name in the presence of two subscribing witnesses.

JOHN WALTER WHITFORD.

Witnesses:

CARL A. PEARSON,

JOHN A. PEARSON.

A. Yes, he was an employee at about that time or a little earlier.

Q. 10. And when you made this investigation to which you referred to ascertain who was the inventor of this particular torch, there was no influence of any kind involved in filing in the name of one man rather than another?

A. Oh, none whatever. I made the usual inquiry as to who was the inventor and filed the application accordingly.

Cross-examination by Mr. Watson:

X Q. 11. Did you personally ask Mr. Clifford if he was the inventor?

A. I don't remember whether I asked Mr. Clifford whether he was the inventor or not. I don't remember whether Mr. Clifford was there at the time.

X Q. 12. As a matter of fact, you were told who was the inventor without any inquiry on your part, were you not?

A. No, sir, I made the usual inquiry as I always do and I went to the Davis-Bournonville Company plant and took this matter up there.

X Q. 13. Who did you make the inquiry of?

A. It is some time ago. I don't remember of whom I inquired.

X Q. 14. You don't remember whether you talked with Mr. Clifford or not?

A. No.

(Here follows Plaintiff's Exhibit No. 4, Whitford patent, marked side folio pages 201-206; side folio pages 207-293 omitted in printing.)

[fol. 294] IN UNITED STATES DISTRICT COURT

PLAINTIFF'S EXHIBIT No. 22

Department of the Interior,
United States Patent Office.

To all persons to whom these presents shall come, Greeting:

This is to certify that the annexed is a true copy from the records of this office of the File Wrapper and Contents, in the matter of the Letters Patent of John Walter Whitford, Assignor to Davis-Bournonville Acetylene Development Company, -r 1,028,166, Granted June 4, 1912, for improvement in Welding or cutting Apparatus.

In testimony whereof I have hereunto set my hand and caused the seal of the Patent Office to be affixed, at the City of Washington, this twenty-second day of November, in the year of our Lord, one

thousand nine hundred and twenty-three and of the Independence of the United States of America the one hundred and forty-eighth.

Karl Fenning, Acting Commissioner of Patents. (Seal.)

C.

[fol. 295] Div. 30

1911

(Ex'r's Book:) 35.10.

Number (Series of 1900): 612,189.
Patent No. 1,028,166.
Name: John Walter Whitford, Ass'or to Davis-Bournonville Acetylene Development Company, of Pierre, S. Dak. a Corp. of S. Dak.
Of Jersey City,
County of —— ——,
State of New Jersey.
Invention: Welding or Cutting Apparatus.

Parts of application filed.	Original.	Renewed.
Petition,	Mar. 4, 1911.	——, 191-.
Affidavit,	" " 1911.	——, 191-.
Specification,	" " 1911.	——, 191-.
Drawing,	" " 1911.	——, 191-.
Model or Specimen,	191-.	——, 191-.
1. First Fee, Cash, $15,	Mar. 4, 1911.	——, 191-.
" " Cert.,	—— 191-.	——, 191-.
Appl. filed complete	Mar. 4, 1911.	——, 191-.
Examined: N. R. Sulivan, Ex.	Nov. 13, 1911.	
Allowed: M. M. Mortimer, For Commissioner.	—— ——, For Commissioner.	
Notice of Allowance:	Nov. 16, 1911.	——, 191-.
4. Final Fee, Cash $20,	May 4, 1922.	——, 191-.
" " Cert.,	191-.	——, 191-.

Patented June 4, 1912.
Attorney: J. F. Brandenburg, 2 Rector St., New York, N. Y.
Associate Attorney: —— ——.
(No. of Claims 14.) Title as Allowed: Welding or Cutting Apparatus. 158-109.
[On left margin:] Division of App., No. —, filed ——, 191-.

[fol. 296] $15.00 Received Mar. 4, 1911. C. M., Chief Clerk, U. S. Patent Office

Serial No. 612,189

Petition and Power of Attorney

To the Commissioner of Patents:

Your petitioner, John Walter Whitford, a citizen of the United States and resident of Jersey City, in the county of Hudson and

State of New Jersey, whose post office address is 87 Romane Avenue, Marion, Jersey City, New Jersey, prays that Letters Patent may be granted to him for the improvements in welding or cutting apparatus, set forth in the annexed specification; and he hereby appoints J. F. Brandenburg (Register Number 5676), of No. 2 Rector Street, New York City, his attorney, with full power of substitution and revocation, to prosecute this application, to make alterations and amendments therein, to sign the drawings, to receive the patent, and to transact all business in the Patent Office connected therewith.

Signed at New York City, County of New York and State of New York, this 3rd day of March, 1911.

John Walter Whitford.

[fol. 297] To all whom it may concern:

Be it known that I, John Walter Whitford, a citizen of the United States, a resident of Jersey City, in the county of Hudson and State of New Jersey, have invented certain new and useful Improvements in Welding or Cutting Apparatus, of which the following is a specification.

This invention relates to apparatus for heating, brazing, welding or cutting, or otherwise treating, metals by means of jets of gases directed upon the work.

The apparatus is designed more especially for using oxygen and acetylene under pressure. Such a device is commonly known as an oxy-acetylene torch or blow-pipe. In such apparatus it is customary to supply a number of removable and inter-changeable tips for each torch or head, these tips varying in size and in the dimensions of the passages therein so that flames of different sizes and qualities for different kinds of work may be had.

In the form of apparatus which has proved practically successful the mixing of the combustible and combustion-supporting gases for the heeating or welding flame is effected in the tip, the gases being kept separate until after they enter the tip. In this form of apparatus it is of the greatest importance to provide sure seals at the joint between the head and tip, both to seal the different kinds of gases from each other and from leakage outside of the torch.

One of the objects of the invention is to provide improved sealing means for this purpose.

The object is, further, to provide seals for as many ducts as may lead from the head into the tip.

Another object of the invention is to provide means for leading gaseous fluid other than the oxygen and acetylene for the flame through the head into the tip.

A special object is to lead such fluid through the sealing seats [fol. 298] provided at the junction of the head and tip. Such fluid may be, for example, oxygen, usually under higher pressure than the other oxygen stream, for cutting, or air or other gaseous medium for cooling the tip and the gases passing therethrough.

The invention consists first in a detachable and interchangeable

tip having means for mixing the gases for the flame therein, and a head for supplying the tip with these gases, the tip and head being formed with similar external and internal similar abrupt-angled conical seats, in which is formed an annular channel or channels for establishing communication at all relative positions of the head and tip. This annular channel, while preferably narrow for economy of space, affords a chamber of suitable capacity for supplying the communicating inlet or inlets in the head.

The conical seats contemplated by this invention have the distinctive property of separating freely upon removal of the external axially directed pressure holding the tip to the head. Such a structure is entirely different in nature and properties from a mere gentle taper. Such a taper joint is self-holding, and the less the taper the easier it is to wedge the male member irremovable into its taper socket. Such a taper joint is therefore inoperative for an oxy-acetylene blow-pipe, one of the first requirements of which is ease in interchanging the tips. When it is considered that the head and tip are drawn together by screw means, with which there is always a tendency to exert more force than is necessary, and that the head and tip remain clamped together for periods of rest that are often considerable and during which the joint is more or less affected by heat and probably also by the gases, it will be apparent why a gently tapered joint would render a torch useless because of the jamming of the tip. But with a conical joint of sufficiently abrupt angle the [fol. 299] properties are exactly reversed. Whereas with such a taper joint as described, the greater the external compression the more the reaction of the socket, owing to friction, locks the male member against removal, with this conical joint the more the external compression the more the reaction tends to force the tip out of the socket. Hence, while with conical seats absolutely gas-tight seals may be formed at both sides of the annular channel under the action of a separate compression member, such as a screw coupling, the tip is held in place by this coupling and not by the grasp of the conical socket, and upon release of the coupling the seats separate freely. Such conical seats should, however, be formed of sufficient acuteness of angle and of sufficiently long sides to insure ample seals at both sides of the annular channel or chamber, or alternating with as many annular channels as may be employed.

The invention also consists in a torch or the like in which a gaseous fluid, other than the oxygen and acetylene for the flame, is brought into the passage therefor in the tip, through the head, and preferably through the sealing seats between the head and tip, such seats being conical as just described or even of other form. Thus, the invention includes both a novel form of air-cooled torch and a novel form of cutting torch, according to whether the gaseous fluid is air or other gaseous medium for cooling led to a suitable passage in the tip, or oxygen for cutting led to a special passage in the burner tip arranged to play upon the work.

In the accompanying drawings, showing by way of illustration certain preferred embodiments of the invention:

[fol. 300] Figure 1 is a side elevation of the torch with an air-cooled tip;

Fig.[ure]* 2 is an enlarged section through the head and tip of this form of torch;

Fig.[ure]* 3 is a section at right angles to the last, the tip being partly broken away;

Fig.[ure]* 4 is a cross-section through the rear conical portion of the tip shown in these views;

Fig.[ure]* 5 is a view corresponding to Fig.[ure]* 2, showing a welding tip without air-cooling;

Fig.[ure]* 6 is a section on a plane corresponding to that of Fig. 3 showing a cutting tip in the head; and

Fig.[ure]* 7 is a cross-section through the handle portion of the torch.

[fol. 301] In these views the numeral 10 indicates the head, which is preferably a casting of suitable form. Three sockets 11, 12 and 13 are formed in the lower portion of this head, and three pipes 14, 15 and 16 have their ends secured therein. The pipes 14 and 15 are preferably permanently, or semi-permanently secured to the head, and together with the casing 17 constitute a convenient handle for the torch. As heretofore, the portion of the acetylene pipe or conduit 15 inside this casing may be enlarged [and packed with]* ∧ for the reception of material for protecting the acetylene generator or tank from a flash-back, while the oxygen pipe 14 merely passes through the casing as a matter of convenience. The pipe 16 may be, and preferably is, detachably connected to the head, as by means of a screw coupling 18, and with the handle, as by means of a laterally-projecting arm 19 clamped in a hole by means of a screw 20. The three pipes or conduits are provided with suitable controlling valves 21, 22 and 23. The valve 23 is preferably merely a cut-off valve, but this is not material.

The sockets 11, 12 and 13, together with the three drilled passages 24, 25 and 26 leading therefrom, constitute separate conduits in the head. The front part of the head is provided with a conical socket 27 for the tip, and the three conduits open into this socket. In the preferred construction, the oxygen conduit 24 opens axially at the back of the socket, and the conduits 25 and 26 through the side of the socket, one in advance of the other.

Per D. The tip 28, [or]* 28^a ∧ 28^b has a narrow longitudinal mixing passage or drilled opening 29 ∧ 29^a encircled by thick walls. This passage has its discharge orifice at the front end of the tip so as to play upon the work. At

Per C. the rear the tip is provided with two [sets]* of inlets for leading the two kinds of gases for combustion to said kinds

[*Words and figures enclosed in brackets erased in copy.]

[fol. 302] mixing chamber. The arrangement of these inlet passages may be varied. Preferably, there is a single axial restricted inlet 30 for the oxygen and lateral inlets 31 for the acetylene. The acetylene inlets may be, and preferably are, inclinded to the mixing passage. The number and size of the inlet passages may be varied according to the particular results desired. The mixing passage 29 may be arranged axially within the tip

Insert A^1. $\wedge$ or eccentrically, $\wedge$ [both forms being shown].*
" A^2. A^1 A^2
32

The rear part $\wedge$ of the tip that enters the head is conical, the angle thereof and of the conical socket 27 being the same and comparatively abrupt. Both conical faces are preferably ground smooth. An annular passage, channel or recess 33 is formed within the area of these conical seats, being positioned so as to communicate directly with the acetylene conduit 25 and the acetylene inlets 31. Preferably, though not necessarily, this annular channel is formed in the conical tip portion 32. While narrow, this channel forms an adequate chamber or reservoir for the supply of the acetylene inlets. An oxygen chamber 34 may also be provided at the back of the socket 27. The zones of the conical seats at opposite sides of this annular channel form sure and ample seals, on the one hand sealing the oxygen and acetylene from each other before entering the tip and on the other hand sealing against leakage through the joint outside the torch.

The two forms of tip are provided also with a second annular passage 35 within the area of the conical seats, which annular passage may also be formed in the tip. This annular passage or recess communicates directly with the third conduit 26 in the head when the tip is in place. The conical seat sections at opposite sides of this annular communication-establishing passage form sure and ample inner and outer seals with respect to this passage, as in the other case. [fol. 303] In the form of tip shown in Fig. 6 the second annular passage 35 communicates with a longitudinal passage or drilled opening 36, independent of the mixing passage 29^a, which is designed to convey cutting oxygen. In the preferred construction the portion of the tip containing this oxygen passage terminates considerably short of the front end of the tip, and the passage is continued by a removable nozzle or sub-tip 37 secured to said portion, as by being screwed therein. By this means the oxygen duct is caused to discharge alongside the duct for the heating mixture, and preferably slightly in advance thereof.

In the form of tip shown in Figs. 2, 3 & 4 the annular passage 35 communicates by means of inlets 38 with a longitudinal passage 39, annular in cross-section, which surrounds the mixing

29
A, B. passage $\wedge$ [29^a].* While this sheath-like passage may be formed in a variety of ways, I prefer to secure a sleeve

[*Words and figures enclosed in brackets erased in copy.]

• 40, by forcing or otherwise, on an annular shoulder 41
body 280
D, C'. at the base of the ∧ [nozzle]* part ∧ of the tip; ∧ .
C¹

When this form of tip is used and the pipe 16 is connected up with a source of air under pressure, or other suitable cooling gas, instead of oxygen for cutting as in the other instance, a cooling envelope is caused to flow along or over the tip. In order to prevent this annular stream of air from mingling with the flame, a shield 42 is attached to or formed on the *the* front end of the tip, this shield being constructed and arranged to cause the air discharged from the passage to flow back over the tip.

In both forms of tip the base of the conical part 32 is perferably larger than the adjacent part of the tip. A coupling sleeve 43 engages threads [44]* or their equivalents on the head and by means of a flange 44 presses upon this enlarged base, so as to draw the tip [fol. 304] into the head and hold it there.

Fig.[ure]* 5 illustrates a welding tip 28ᵇ without the air-cooling feature attached to the same form of head shown in the other views. This tip is essentially similar to the other forms of tip illustrated, except that it is provided with neither the annular air passage 39 nor the cutting oxygen passage 36, and consequently lacks also the annular passage 35.

In operation, the tips are instantly attachable to or detachable from the head. The conical seats separate at once upon unscrewing of the coupling. With the same torch body, either a cutting torch, an air-cooled torch or a welding torch without air-cooling may be had, by attachin- one kind of tip or the other and by connecting with a source of air or cutting oxygen under pressure or neither, as the case may be. The oxygen and acetylene for the welding or cutting flame also preferably enter the torch under considerable pressure.

A material advantage of the torch provided with the cutting tip shown in Figure 6 is that the tip may be swiveled in the head and then clamped so as to bring the jets from the mixing passage 29ᵃ and the cutting oxygen passage 36 into alinement with the desired line of cutting, with the heating flame in the lead, the passage 36 being always in communication with the duct in the head for cutting oxygen by virtue of the annular passage 35. It is the practice to advance the heating and cutting jets along the line of the cuts with the heating jet in the lead, and in order to do this, heretofore, it has often been necessary to hold the torch in an awkward manner. With my construction the torch can be held in the most convenient manner and the cutting tip adjusted so as to cut in any direction.

While I have shown and particularly described certain embodiments of my invention, it will be understood that many substitutions, omissions and changes may be made without departing from the invention.

[*Words and figures enclosed in brackets erased in copy.]

[fol. 305] I claim:

B. blow pipe

Per B. 1. In ^ apparatus [for heating, welding or cutting metals by means of gases under pressure],* a burner tip provided with a longitudinal passage for the gaseous mixture for the flame and a conical rear portion having formed therein two sets of inlet passages for leading the two kinds of gases to said longitudinal passage, and a head provided with a conical socket and separate conduits for the two kinds of gases communicating respectively with said inlet passages, the surfaces of said conical tip portion and conical socket being formed as similar abrupt-angled freely-separable conical seats, said seats having an annular passage formed between them for placing the conduit and inlet passages for one kind of gas in communication and said seats being formed at a sufficiently acute angle and with sufficiently long sides to insure ample inner and outer gas-tight seals at the two sides of said annular passage when the parts are forced and held together in axial direction.

" " Cl. 1, Sub C².

B. blow pipe

Per. B. 2. In ^ apparatus [for heating, welding or cutting metals by means of gases under pressure],* a burner tip and a head provided with similar meeting abrupt-angled conical seats having an annular recess formed between them and affording gas-tight seals at the two sides of said recess, said tip being provided with a longitudinal mixing passage and two sets of inlets at the rear one set leading from said annular recess, said head being provided with separate conduits for the two kinds of gases for combustion communicating respectively with said annular recess and the remaining inlet or inlets, and a separate screw coupling for uniting said tip and head, said conical seats being freely separating when relieved of the pressure of said coupling.

[fol. 306] Canceled per C

B. blow pipe

Per A. 3. In ^ apparatus [for heating, welding or cutting metals by means of gases under pressure],* a removable and replaceable burner tip provided with a longitudinal passage for the gaseous mixture for the flame and a conical rear portion having formed therein two sets of inlet passages for leading the two kinds of gases to said longitudinal passage, the surface of said conical portion forming an abrupt-angled non-sticking sealing seat, said seat being provided with a narrow annular channel communicating with one set of inlet passages, said seat affording ample sealing surfaces at both sides of said annular passage.

" " metals by means of gases under pressure],* a removable and replaceable burner tip provided with a longitudinal passage for the gaseous mixture for the flame and a conical rear portion having formed therein two sets of inlet passages for leading the two kinds of gases to said longitudinal passage, the surface of said conical portion forming an abrupt-angled non-sticking sealing seat, said seat being provided with a narrow annular channel communicating with one set of inlet passages, said seat affording ample sealing surfaces at both sides of said annular passage.

[*Words and figures enclosed in brackets erased in copy.]

B. blow pipe

Per A. 4. In ∧ apparatus [for heating, welding or cutting
" " metals by means of gases under pressure],* a burner tip provided with a longitudinal mixing passage and inlets thereto for two kinds of gases, a socketed head provided with separate conduits for the two kinds of gases, said tip and head being provided with similar external and internal abrupt-angled freely-separating conical seats having annular communication-establishing means formed between them, the base of the conical portion of the tip being of a diameter larger than the part of the tip in advance thereof, and a flanged and threaded coupling for uniting said tip and head, the flange of said coupling taking over the base of said conical portion of the tip.

5. In a device of the character described, a burner tip provided with a longitudinal mixing passage and a conical rear portion having

inlet passage

Per A. formed therein a longitudinal ∧ and lateral inlet passages for leading the two kinds of gases to said mixing passage, a head provided with a conical socket and separate conduits for the two kinds of gases opening respectively through the back and side of the socket and communicating with said longitudinal and lateral inlet passages, the surfaces of said conical tip portion and conical socket being formed as similar abrupt-angled freely-separable conical [fol. 307] seats, said seats having an annular passage formed between them for placing the side conduit and lateral inlet passages in communication and said seats being formed at a sufficiently acute angle and with sufficiently long sides to insure ample inner and outer gas-tight seals at the two sides of said annular passage, and separate means for forcing the tip and head together, said tip being held in place by said means alone.

6. In a device of the character described, a passaged burner tip provided with means for mixing combustible and combustion-supporting gases therein, a socket head provided with conduits for supplying said tip, said tip and head being formed with similar external and internal abrupt-angled freely-separating conical seats, there being a plurality of annular communication-establishing channels formed between said seats, said seats affording gas-tight seals alternating with said channels, and separate means for holding said tip tightly in said head.

[Matter enclosed between rules erased in copy.]

— [7].* In a device of the character described, a tip having a longitudinal mixing passage with a discharge orifice and

separate

[two sets of]* inlets at the rear for leading different kinds of gases to said passage, said tip being provided also with an independent longitudinal passage, a socketed head provided with separate conduits for the two kinds of gases for combustion communicatnig respectively

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[*Words and figures enclosed in brackets erased in copy.]

kinds
with the two [sets]* of inlets, [and]* ^ a conduit for supplying
D¹
gaseous fluid to said independent longitudinal passage, said tip and head being provided with similar external and internal conical seats for sealing, there being separate annular passages formed between said conical seats for placing said independent longitudinal passage
one kind
and [a set]* of said inlets, respectively, in communication with their conduits in the head.

[fol. 308] — [7ª, 8].* In a device of the character described, a tip
inlet
Per A. having a longitudinal ^ mixing passage with a discharge orifice and a longitudinal and lateral inlets for leading different kinds of gases to said passage, said tip being provided also with an independent longitudinal passage discharging at the forward part of the tip, and a socketed head provided with separate conduits for the two kinds of gases for combustion opening, respectively, through the rear and side of said socket and communicating with said lateral and longitudinal inlets, said head being provided with another side conduit for supplying gaseous fluid to said independent longitudinal passage, said tip and head being provided with similar external and internal conical seats for healing, there being separate annular passages formed between said conical seats for placing said independent longitudinal passage and the lateral inlets, respectively, in communication with their conduits in the head.

— [8ª, 9].* In a device of the character described, a tip having a mixing passage and inlets thereto for the two kinds of
Insert A³. gases and also an independent passage, and a head, ^
A³
the gaseous fluid for said independent passage being led thereto through the sealing seats between the tip and head.

— [9ª, 10].* In a device of the character described, a tip having a mixing passage and inlets thereto for the two kinds of
Insert A⁴. gases and also an independent passage, and a head, ^
A⁴
the gaseous fluid for said independent passage being led thereto
the
through [an]* annular passage in the sealing seats between the tip and head.

11. In a device of the character described, a tip having a mixing passage and inlets thereto for the two kinds of gases and also an independent passage for cutting oxygen, and a head, the cutting oxygen being supplied to said passage through the sealing seats between the tip and head.

[Matter enclosed between rules erased in copy.]

[*Words and figures enclosed in brackets erased in copy.]

[fol. 309] —. [10[a], 6[c], 12].* In a device of the character described, a tip having a mixing passage and inlets thereto for the two kinds of gases and also an independent longitudinal passage for gaseous cooling fluid, a head, said head and tip having meeting sealing seats, and means for leading the gaseous cooling fluid from said head to said independent passage through said seats.

— [11[a], 7[c], 13].* In a device of the character described, a tip having a mixing passage and inlets thereto for the two kinds of gases and also a longitudinal passage annular in cross-section for gaseous cooling fluid, a head, said head and tip having meeting sealing seats, and means for leading the cooling fluid from said head to said passage through said seats.

— [12[a], 8[c], 14].* In a device of the character described, a tip having a sealing seat at the rear, a mixing passage and inlets thereto for the two kinds of gases, and a longitudinal passage annular in cross-section for gaseous cooling fluid and inlets thereto from said sealing seat, and a head for supporting and supplying said tip having a sealing seat similar to the seat on the tip and a conduit opening therethrough for communication with the inlets to said cooling passage.

— [15].* In a device of the character described, a tip having a sealing seat at the rear, a mixing passage and inlets thereto for the two kinds of gases, and a longitudinal passage annular in cross-section for gaseous cooling fluid and inlets thereto from said sealing seat, and a head for supporting and supplying said tip having a similar meeting sealing seat and a conduit for cooling fluid, an annular passage being formed in the sealing seats for placing said conduit in communication with the inlets to the cooling passage in the head.

Sub. E[5].

[fol. 310] — [14a[2] 14C[5] 16].* In a device of the character described, a tip having a mixing passage and inlets thereto for the two kinds of gases and also an independent passage, and a head for supplying said inlets, the gaseous fluid for said independent passage being also led through the head.

[Matter enclosed between rules erased in copy.]

Per A.

---

17. In a device of the character described, a tip having a mixing passage and inlets thereto for the two kinds of gases and also an independent passage for cutting oxygen, and a head for supplying said inlets, the cutting oxygen being also led through the head.

[Matter enclosed between rules erased in copy.]

[*Words and figures enclosed in brackets erased in copy.]

Per E.

— [11C[5] 10E, 15a, 18.]* 5. In a device of the character described, a tip having a mixing passage and inlets thereto for the two kinds of gases and also a longitudinal passage for gaseous cooling fluid, a head provided with conduits for supplying said inlets and another conduit therein for leading cooling fluid to said cooling passage.

Per F.

— [12 16[a], 11-E 19].* Apparatus of the character described, comprising a head, three separate conduits for gaseous fluids leading into said head, said conduits being extended separately within the head, and a tip having passages supplied by said conduits.

Insert E[6].

E[a]

[Matter enclosed between rules erased in copy.]

—. [17[a], 20].* Apparatus of the character described, comprising a head, three separate conduits for gaseous fluids leading into said head, said conduits being extended separately within the head, and a tip provided with a mixing passage and two sets of inlets thereto supplied by two of said conduits, said tip being also provided with a passage for a cooling gaseous medium, said passage being supplied by the third conduit.

Insert D[2].

Cls. 7-8.

Per A.

21. In a cutting apparatus, a tip having longitudinal passages for the combustible mixture and the cutting oxygen drilled therein, and inlets for leading different kinds of gases for the heating flame to the first of said passages, the portion of the tip having the cutting [fol. 311] passage terminating short of the front end of the tip, and a separate nozzle secured to said portion of the tip and continuing said cutting passage.

22. In a cutting apparatus, a detachable tip provided with passages for directing heating and cutting jets upon the work, a head for supporting the tip and adapted to supply said passages, and means whereby the tip may be swiveled on the head to cut in any direction while preserving communication with the ducts in the head.

[Matter enclosed between rules erased in copy.]

In witness whereof I have signed my name in the presence of two subscribing witnesses.

John Walter Whitford.

Witnesses: C. B. Wortham, Wm. W. Barnes.

[*Words and figures enclosed in brackets erased in copy.]

[fol. 312] *Oath.*

STATE OF NEW YORK,
County of New York:

John Walter Whitford, the above-named petitioner, being sworn, deposes and says that he is a citizen of the United States and resident of Jersey City, in the county of Hudson and State of New Jersey, that he verily believes himself to be the original, first and sole inventor of the improvements in welding or cutting apparatus described and claimed in the annexed specification; that he does not know and does not believe that the same was ever known or used before his invention or discovery thereof, or patented or described in any printed publication in any country before his invention or discovery thereof, or more than two years prior to this application, or in public use or on sale in the United States for more than two years prior to this application; that said invention has not been patented in any country foreign to the United States on an application filed by him or his legal representatives or assigns more than twelve months prior to this application; and that no application for patent on said improvements has been filed by him or his representatives or assigns in any country foreign to the United States.

John Walter Whitford.

Sworn to and subscribed before me this 3rd day of March, 1911. Alfred E. Smith.

[fol. 313] Div. 30 Room 152

Address only "The Commissioner of Patents, Washington, D. C."

Paper No. 2

All communications respecting this application should give the serial number, date of filing, and title of invention.

A. M. F.

Department of the Interior,
United States Patent Office,
Washington, March 29, 1911.

John W. Witford, c/o J. F. Brandenburg, New York, N. Y.:

Please find below a communication from the Examiner in charge of your application Serial No. 612,189, Welding or Cutting Apparatus, filed Mar. 4, 1911.

E. B. Moore, Commissioner of Patents.

In the drawing packing material should be shown in the acetylene conduit 15, as described on page 5, line 10.

The mixing passage 29 shown in Fig. 6 should be distiguished from the mixing passage 29 shown in Fig. 2, as it differs in location from that in Fig. 2.

Page 5, line 28, tip 28^b should be mentioned along with tips 28 and 28^a.

Claim 1 is objectionable. In line 12, "passages" should be—passage-.

Claims 1, 2, 3, 4 and 5 are rejected on patent to Bruckner, 935,458, Sep. 28, 1909, 158-109. The recitation of the conical seats as abrupt-angled fails to distinguish from this reference.

Claims 1, 2, 3, 4 and 5 are also rejected on patent to Williams, 981,342, Jan. 10, 1911, 158-109.

Claim 5 is objectionable. In line 3, "a longitudinal and lateral inlet passages" is vague. Line 12, "passages" appears in error.

Claim 6 is objectionable. In line 6, "angled" is misspelled.

[fol. 314] Claim 6 is rejected as there are not sufficient elements recited to perform any useful function.

Claim 7 is rejected as applicant fails to disclose an annular passage "for placing said independent longitudinal passage * * * in communication with (its conduit) in the head."

Claim 8 is objectionable. In line 3, "a longitudinal and lateral inlets" is vague.

Claims 9, 10 and 11 are objectionable in reciting "sealing seats" inferentially and not positively.

Claims 1, 2, 3, 4, 8, 9, 10, 11, 17, 21 and 22 are specific to Fig. 6; claims 7, 12, 13, 14, 15, 18 and 20 are specific to Figs. 1 to 4; and claims 16 and 19 are specific to Figs. 1 to 4, 6 and 7.

Claims reading on but one figure of the drawing can be allowed in one application.

Claims 1, 2, 3, 4, and 7 to 22 are rejected as being for separate inventions.

E. S. Glascock. Atty. C. J. S.

[fol. 315] In the United States Patent Office

Div. 30, Room 152

In the Matter of the Application of John W. Whitford for a Patent on Improvements in Welding or Cutting Apparatus. Filed March 9, 1911. Serial Number 612,189.

A 3, 5

May 12, 1911.

Hon. Commissioner of Patents, Washington, D. C.

SIR: Replying to Office action of March 29, 1911, the above entitled application is hereby amended as follows:

Page 5, line 10, strike out "and packed with," and insert: *for the reception of*.

Line 28, strike out "or" and insert a comma; after "28^a" insert 28^b.

Line 29, after "29," insert: *or* 29^a.

Page 6, line 8, after "tip," insert: *as shown at* 29 *in Fig.* 2; same

line strike out "both forms being shown" and insert: *as shown at* 29^a *in Fig.* 6.

Page 7, lines 3 and 15, change "29" to: 29^a.

Page 8, line 21, change "29" to: 29^a.

Claim 5 line 3, after "longitudinal" insert: *inlet passage.*

Strike out claim 6.

Claim 8, line 3 after "longitudinal" insert: *inlet.*

Claim 9, line 3 after the second comma, insert: *said head and tip being provided with cooperating sealing seats.*

Claim 10, line 3 after the second comma, insert: *said head and tip being provided with cooperating sealing seats and an annular channel formed therebetween.*

Renumber claims 7 to 10 as 6 to 9.

In claim 10, now 9, line 5, change "an" to: *the.*

[fol. 316] Strike out claim 11.

Renumber claims 12 to 16 as 10 to 14.

Strike out claim 17.

Renumber claims 18 to 20 as 15 to 17.

Strike out claims 21 and 22.

Remarks

The exact extent of the Examiner's requirement for division is not clear to the applicant, and it seems that the Examiner has misinterpreted the scope of certain of the claims. Original claims 1 to 5 are generic to all of the forms, being directed to the conical, self-separating seal with one annular channel formed therein, the seats affording seals at both sides of this annular channel. Original claims 6 to 10, $\overset{16}{\wedge}$ and 19, were subgeneric to Figs. 1 to 4 and 6. These claims bring in two independent passages leading through and discharging at the forward end of the tip, but are broad enough to cover the form of Figs. 1 and 2 where the second longitudinal passage is a cooling passage, or the form of Fig. 6 where it is a passage for cutting oxygen. Claims 12 to 15, 18 and 20 were specific to Figs. 1 and 2, because they specified a passage for colling fluid. Claims 11, 17, 21 and 22 were specific to Fig. 6 because they specified a cutting oxygen passage. Claim 6 has been canceled in view of the Examiner's objection. Claims 11, 17, 21 and 22 have been canceled without prejudice to applicant's right to present them in a divisional application.

It is submitted that all of the present claims clearly belong in this application, or at least that it is entirely permissible to present them in one case.

This applicant was aware of the Bruckner and Williams patents prior to the filing of the application. Bruckner shows just what applicant has discovered may be avoided, namely a sticking or clamping [fol. 317] seal. Applicant employs conical seats, characterized by abrupt non-ticking angles. The Bruckner patent shows a mere gentle taper. There is all the difference in the world between the behavior

of conical parts, such as applicant employs, and a gentle taper, such as disclosed by Bruckner. They have nothing in common, and display characteristics which are the exact reverse of each other. With a taper such as Bruckner's, the harder the tip is forced into the head, the more it is clamped by the squeezing action of the head and the more difficult it is to remove it. The seating is effected by means of screw-threads, with which there is always danger of applying more power than is necessary. In practice, the Bruckner torch would be practically inoperative and useless, since the time would come when the tip would be so wedged into the socketed head that it would be impossible to remove it without damage to the parts. The utility of these torches demands that the tips shall be readily, practically instantaneously, removable and replaceable. A series of tips of different sizes goes with each torch, and it is as important to the operator that these tips be readily interchangeable as it is to a dentist that he be able to change his drills in his dental engine. It is a fact that tapered tips seating in tapered sockets were tried in oxyacetylene torches some years back, and abandoned because they could not be used on account of this very wedging of the tips into the head. It is therefore urged that the Bruckner reference should be withdrawn as having no bearing on this case.

This applicant has made the discovery that above a certain critical angle, characteristics are entirely altered. This critical angle is the dividing line between diametrically unlike things. A tip with an [fol. 318] abrupt conical seat fitting into a similar conical socket absolutely cannot become wedged or stuck. On the contrary, the greater the pressure forcing the tip into the head, the more does the reaction of the head tend to force the tip out; so that, as soon as the coupling is loosened, the tip must infallibly fall out of the socket. But when the tip and head are coupled together, these conical seats from perfect seals, and applicant employs the one pair of complementary internal and external conical seats *to perform all the sealing between the head and the tip.* To this end, he forms *between the conical sealing surfaces* an annular channel to place the acetylene inlets in communication with the acetylene conduit in the head, there being ample sections of the conical seats at *both sides* of this annular channel to form *two seals.* One seal is the internal seal, between the oxygen and the acetylene; the other is the external seal between the acetylene and the atmosphere.

Williams fails to show such conical seats provided *therein* with an annular channel and affording ample conical seals at both sides of such channel. Instead, Williams resorts to packing 23 to form his external seal. It may be noted that cylindrical meeting surfaces, such as shown in rear of this packing, are entirely ineffectual as a seal; so that Williams is compelled to use the packing. Now packing in any form has proved distinctly objectionable in these torches. The conditions of use of these implements, it must be remembered, are extremely unusual. In view of these considerations, it is urged that the Williams patent be withdrawn as a reference.

[fol. 319] Applicant's achievement, is the production of an oxy-acetylene torch having conical, non-sticking, self-separating, external and internal seats, provided with an annular channel establishing communication for one kind of gas, and affording perfect conical seals at both sides of this annular channel, that is, one seal between the two kinds of gases, and one seal between the gases and the atmosphere. In a development of the invention, he employs more than one annular channel in the conical seats, and has a corresponding number of alternating seals.

Line 12 of claim 5 is found to be correct. The lateral inlet passages, are the acetylene inlets in the rear part of the tip. The annular passage or channel in the seats places these inlets in communication with the side conduit in the head. This side conduit in the head supplies the acetylene.

Claim 7 is believed to be correct. The independent longitudinal passage is either the cooling passage or the cutting oxygen passage in the tip. The annular passage or channel 35 places this independent longitudinal passage in communication with its conduit in the head.

Allowance is respectfully solicited.

Very respectfully J. F. Brandenburg, Attorney for applicant.

2 Rector Street, New York, May 12, 1911.

[fol. 320] Div. 30, Room 152

Address only "The Commissioner of Patents, Washington, D. C."

Paper No. 4

All communications respecting this application should give the serial number date of filing, and title of invention.

A. M. F.

Department of the Interior,
United States Patent Office.
Washington, May 19, 1911.

John W. Whitford, c/o J. F. Brandenburg, 2 Rector Street, New York, N. Y.:

Please find below communication from the examiner in charge of your application Serial No. 612,189, Welding or Cutting Apparatus, filed March 4, 1911.

E. B. Moore, Commissioner of Patents.

In response to amendment filed May 15, 1911.

Reference character 29^a should be added to the drawing.

Page 7, line 15 as amended, "29^a" should be —29—.

Claims 1 to 4 recite apparatus for cutting metals.

Applicant discloses apparatus for cutting metals in Fig. 6 but not in other figures of the drawing. Claims 7, 8, 9, 14 and 16

recite a tip having an independent passage, which is shown in Fig. 6, but not in other figures of the drawing.

Claims 10, 11, 12, 13, 15 and 17 recite "a passage for cooling fluid," shown in Figs. 1 to 4, but not in other figures of the drawing.

Applicant's remarks as to the requirement for division is noted. However, the form of apparatus shown in Fig. 6 is adapted to cutting metal while that shown in Figs. 1 to 5 is not adapted to cutting metal.

The requirement for an election of species is repeated.

Claims 1, 2, 3, 4, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16 and 17 are rejected as being for separate inventions.

Claim 5 stands rejected on patent to Williams, 981,342, of record. Applicant's remarks to the effect that Williams shows packing while applicant does not show packing are noted, but are considered insufficient to show how this claim avoids the reference.

Claim 6 is rejection as being for a device not disclosed as applicant fails to disclose a tip having two sets of inlets to the mixing passage.

M. R. Sullivan. C. J. S.

[fol. 321] May 23, 1911,
Division XXX.

In the United States Patent Office

Div. 30, Room 152

In the Matter of the Application of John W. Whitford for a Patent on Improvements in Welding or Cutting Apparatus. Filed March 4, 1911. Serial No. 612,189.

Hon. Commissioner of Patents, Washington D. C.

Sir: Replying to Office action of May 19, 1911, the above-entitled case is hereby amended as follows:

Will the Examiner kindly change the reference character 29 in Figure 6, to 29^a?

Page 7, line 15, change "29^a" to: 29.

Claims 1 to 4, line 1 of each, after "In" insert: *blow-pipes;* lines 1 and 2 of the same claims, strike out "for heating, welding or cutting metals by means of gases under pressure."

Remarks

It was not the intention to limit claims 1 to 4 to cutting apparatus. The structure recited in this claim may be embodied in a welding apparatus such as shown in Figure 2 or a cutting apparatus such as shown in Figure 6. The intention was to claim this structure in heating, welding or cutting apparatus. However, in order to avoid any misconception, the claims have amended. The independent longitudinal passage of claims 10, 11, 12, 13, 15 and 17 is a generic term covering either the cutting-oxygen passage 36 of Figure 6, or the passage 39 annular in cross-section for cooling air. This

[fol. 322] is made clear by the last paragraph of page 6 and the first two paragraphs of page 7.

It is submitted that the requirement for division has been fully satisfied. Only one species is claimed. The remaining claims are either generic or sub-generic.

The apparatus of Figures 1 to 5 is adapted for heating or welding of metals. Figure 6 shows the apparatus with an added feature, the passage for cutting oxygen, so that this apparatus has an added use—that of cutting. Welding can be performed with the apparatus of Figure 6. All that is necessary is not to turn on the cutting-oxygen.

As to the reference Williams, applicant does not urge that it fails to anticipate *merely* because it uses packing. The important fact is that Williams' construction is distinctly different from applicant's, so that he is obliged to use packing. Applicant employs conical seats with an annular communication-establishing groove in these seats and between their ends, so that there are conical sections of the seats in front and also in rear of this channel, these conical sections forming sure external and internal seats. The internal seat seals the gases from each other. The external seat seals against the atmosphere. A torch is not successful without efficient seals at both points. Williams does not disclose this structure. Therefore he fails to anticipate. Because he did not make applicant's discovery, he was forced to make use of unsatisfactory packing.

Favorable action is solicited.

Very respectfully, J. F. Brandenburg, Attorney for Applicant, 2 Rector Street, New York, May 22, 1911.

[fol. 323] 2—260

Div. 30, Room 152

Address only "The Commissioner of Patents, Washington, D. C." A. M. F.

Paper No. 6

All communications respecting this application should give the serial number, date of filing, and title of invention.

Department of the Interior,
United States Patent Office,
Washington, May 27, 1911.

John W. Whitford, c/o J. F. Brandenburg, New York, N. Y.:

Please find below a communication from the Examiner in charge of your application Serial No. 612,189, Welding or Cutting Apparatus, Filed March 4, 1911.

E. B. Moore, Commissioner of Patents.

In response to amendment filed May 23, 1911.

Page 5, last three lines, "two sets of inlets" fails to agree with the drawing.

Claims 1 and 3 are rejected as applicant fails to disclose a burner tip having two sets of inlet passages to said longitudinal passage. His burner tip has one set of inlet passages and in addition one other passage, which passages can not be claimed as two sets of inlet passages.

Claim 2 is objectionable in reciting two sets of passages, one set leading from said annular recess, and the remaining inlet or inlets. If there are two sets of inlets then the remainder is a set of inlets and not an "inlet or inlets," since one inlet can not be termed a "set of inlets."

Claims 1 to 5 are rejected on either patent to Bruckner, 935,458, or Williams, 981,342, both of record.

Applicant attempts to avoid these references by specifying abrupt angled seats. The words "abrupt angles seats" have no definite meaning. Therefore these claims, 1 to 5, are objectionable as indefinite. Moreover, if applicant should specify a definite angle as measured on the drawing, this difference would be judged to be a [fol. 324] difference in degree only, such as any mechanic would make when confronted with the difficulties set forth, and not involving invention.

Claim 6 stands rejected as being for a device not disclosed.

Claim 6 is also rejected on patent to Williams, 981,342 of record. To form Williams' pipe 33 integral with the head of his blowpipe is judged not to involve invention.

Claims 7, 8, 9, 14 and 16 recite a tip having an independent passage. These claims are judged to be specific to Fig. 6 as the cooling passage shown in Fig. 2 is formed between the tip and sleeve 40.

Claims 10, 11, 12, 13, 15 and 17 are specific to Fig. 2. Applicant states that these claims cover either the cutting oxygen passage 36 of Fig. 6, or the passage 39 annular in cross-section, for cooling air. Claims 11, 12 and 13 recite the passage as "annular in cross section," which can not be read on Fig. 6, and the function "for leading cooling fluid," recited in claims 10, 15 and 17, is judged not to apply to Fig. 6.

Claims 7 to 17 stand rejected as being for separate inventions.

M. R. Sullivan. C. J. S.

[fol 325] Mail Room,
June 8, 1911,
U. S. Patent Office.

June 9, 1911,
Division XXX.

In the United States Patent Office

Div. 30, Room 152

In the Matter of the Application of John W. Whitford for a Patent on Improvements in Welding or Cutting Apparatus. Filed March 4, 1911. Serial No. 612,189

Hon. Commissioner of Patents, Washington, D. C.

Sir: Replying to Office action of May 27, 1911, the above-entitled case is hereby amended as follows:

Page 5, next to the last line, change "sets" to *kinds*.

Page 7, line 18, change the period to a semicolon, and add: *the sleeve constituting part of the tip.*

In place of claims 1 to 5, substitute the following claim:

> 1. A device of the character described comprising a head provided with a conical socket and separate conduits for combustible and combustion-supporting gases, a burner tip provided with a mixing and discharge passage, separate inlets for the two kinds of gases to said passage and a conical rear portion, the surfaces of said conical tip portion and conical socket being formed as similar-abrupt-angled freely-E′. separable conical seats, ^ said seats having an annular E′
>
> channel formed between them intermediate their length for placing one kind of said inlets in communication with the corresponding conduit in the head, the portions of the seats at opposite sides of said channel affording inner and outer gas-tight seals of ample width, and means for forcing the tip and head together, said tip being held in place by said means alone.

Cl. 2.

[fol. 326] Claim 6, line 3, strike out "two sets of" and insert: *separate;* line 7, change "sets" to: *kinds;* line 13, change "a set" to: *one kind.*

Renumber claims 6 to 17, as 2 to 13.

Remarks

For the sake of conciseness claims 1 to 5 have been rewritten and condensed so as to present the substance thereof in one claim. This claim sets forth matter which is clearly patentable over the references. One of the great problems in these oxy-acetylene welding and cutting torches is the production of sure seals, both between the two kinds of gases before they enter the mixing tip and between the gases and the outside atmosphere. Leakage between the gases before entering the tip absolutely prevents the operation of the torch. It is essential in these torches that the two gases in the flame always have an exact proportional relation. If there be an excess of oxygen in the flame, the metal will be oxidized, so that the weld will be worthless. An excess of acetylene means carbonization and crystallization of the metal, in which case, also, the weld is unsuccessful. Exact proportions cannot be maintained if there is leakage. Moreover, with leakage the flame cannot be maintained, but will flash back into the tip, burning at the junction of the two kinds of inlets with the mixing passage. The explosion wave of the oxy-acetylene mixture has such great velocity that it is absolutely necessary to maintain a certain velocity in the stream passing through the tip, which cannot be done if there is leakage, either between the gases or between the gases and the air. It is also a primary requisite of

these apparatuses that each torch have a set of from five to ten [fol. 327] tips, which must be instantly interchangeable. Apparatus in which the tips, in actual working, will stick in the head and refuse to become dislodged, is an utter failure. Taper joints such as shown in the Bruckner patent have been tried and discarded as worse than useless. They taught the art nothing. This applicant is the first to produce a socketed head and tip provided with conical meeting surfaces of such character as to be self-separating when the means for forcing them together is released, these conical meeting surfaces affording both inner and outer gas-tight seals, between the two kinds of gases before entering the tip and between the gases and the outside atmosphere. This is done by forming an annular communication-establishing channel for one kind of inlet between the conical meeting surfaces, for example in the conical portion of the tip, so that there are conical sealing seats at both sides of this annular channel.

In other words, applicant has produced a torch head and tip having conical seating surfaces which compel the head and tip to separate upon the release of the external pressure and which afford sure inner and outer seals without the use of any kind of packing whatsoever. This is absolutely new over any one of the references and is not suggested by the references together. This is one of those meritorious and exceedingly practical inventions which are specially deserving of the protection which it was the design of the Patent Act to extend to inventors.

The Examiner is requested to withdraw his objection as to two species being set forth in the claims. Those claims reciting an independent passage are generic to the tip having an annular cooling passage and to the tip having a bore for cutting oxygen. The Examiner's statement that the cooling passage of Figure 2 is formed between the tip and the sleeve 40 is not well founded. The sleeve [fol. 328] is part of the tip so that the annular passage is in the tip. It is not necessary that a part be formed of a single piece. The only reason that the tip with the annular cooling passage is not formed in one piece is because it is cheaper to form a separate sleeve to be secured on the body part of the tip.

The rejection of claim 6 on the patent to Williams is not understood. If we formed the pipe 33 of Williams' integral with the head, which is in no way suggested by the patent, we would not have what is set forth in this claim. This claim calls for a third conduit in the head, and an independent passage in the tip adapted to communicate with this conduit in the head when the tip is inserted in place. Moreover, the claim calls for separate annular passages in the conical seats, one annular passage establishing communication with the inlets for one kind of gas for combustion and the other annular passage communicating with the independent passage in the tip. As a result we have a torch in which the tip is placed in communication with the third conduit in the head either for cutting oxygen or for cooling air by the simple act of inserting the tip in place in the socket. Williams' pipe 33 is entirely separate from the head and must be attached to and detached from the tip

at each interchange, this being in addition to the operation of inserting and removing the tip. The art as far as providing a passage for cutting oxygen in the tip had reached the stage shown in the Williams patent long before the date of the Williams patent and it had never gotten any further. This applicant has produced a very substantial and entirely novel improvement in this connection, and it is submitted that the claim should be allowed. A favorable action is solicited.

Very respectfully, J. F. Brandenburg, Attorney for Applicant, 2 Rector Street, New York, June 7, 1911.

[fol. 329] Patent Office,
Jun. 17, 1911,
Mailed.

Div. 30, Room 152

Paper No. 8

Address only "The Commissioner of Patents, Washington, D. C." All communications respecting this application should give the serial number, date of filing, and title of invention.

A. M. F.

Department of the Interior,
United States Patent Office,
Washington, June 17, 1911.

John W. Whitford, c/o J. F. Brandenburg, 2 Rector Street, New York, N. Y.:

Please find below a communication from the Examiner in charge of your application Serial No. 612,189, Welding or Cutting Apparatus, filed Mar. 4, 1911.

E. B. Moore, Commissioner of Patents.

In response to amendment filed June 8, 1911.

Page 7, line 18 as amended is in error. Applicant should not describe the sleeve 40 as forced on an annular shoulder 41 at the base of the nozzle part of the tip and describe the tip as indicated by reference character 28, and also describe the sleeve 40 as part of the tip. The description of what is indicated on the drawing by reference character 28 as a "tip" and the description of what is indicated on the drawing by reference characters 28 and 40 as a "tip" are contradictory. The tip can not be a part of and a complete device.

Claim 1 is clearly met by and is rejected on patent to Bruckner, 935,458, of record. The patent to Williams, 981,342, of record, shows the joint between the tip and head made at a greater angle than that shown by Bruckner; therefore this claim is also rejected on patent to Bruckner, 935,458, in view of Williams, 981,342, both of record.

Claims 3 to 13 stand rejected as being for separate inventions. Applicant's remarks that his sleeve is a part of the tip do not agree with the specification, in which he states that the tip is shown at 28 and the sleeve at 40.

[fol. 330] Claim 2 is specific to Fig. 6, therefore this claim is also rejected as being for an invention separate from that in claims 6, 7, 8, 9, 11 and 13.

Applicant's remarks on the rejection of claim 2 on Williams, 981,342, are noted, but the distinguishing features mentioned are not found in this claim.

M. R. Sullivan, Examiner. C. J. S.

[fol. 331] In the United States Patent Office

Div. 30, Room 152

In the Matter of the Application of John W. Whitford for a Patent on Improvements in Welding or Cutting Apparatus. Filed March 4, 1911. Serial No. 612,189

D9

Hon. Commissioner of Patents, Washington, D. C.

SIR: Replying to Office action of June 17, 1911, the above entitled case is hereby amended as follows:

Page 7, line 18, change "nozzle" to: *body;* after "part", insert: 280.

Claim 2, end of line 7 insert a comma; next line strike out "and", and insert:

D¹. *said head being provided also with.*

Add the following claims:

D². [14.]* In a device of the character described, a head having conduits for welding gases and a conduit for a gaseous fluid for cooling, and a removable burner structure having burner structure sealing engagement with the head, said ∧ [tip]* being provided with a longitudinal passage for the welding gases and an encircling longitudinal passage annular in cross-section for the cooling fluid, said passages both being provided at the rear with inlets and means establishing communication between said inlets and conduits irrespective of relative burner structure rotation, and a shield on the forward end of the ∧ [tip]* constructed and arranged to deflect the current of cooling fluid backward.

[*Words and figures enclosed in brackets erased in copy.]

[fol. 332] [15.]* In a device of the character described, a head having conduits for welding gases and a conduit for a gaseous fluid for cooling, and a removable burner structure
burner structure
having sealing engagement with the head, said ∧ [tip]* com-
a shoulder on its rear part and,
Per E. prising a body having ∧ a longitudinal passage therein for welding gases, a sleeve secured on said
" " ∧ [a]* shoulder [at the inner part of the body]* and forming with the body a passage annular in
burner structure
cross-section, the body part of the ∧ [tip]* having inlet passages leading to said annular passage and [there being]* an annular groove communicating on the one hand with said inlets and on the other hand with the conduit for cooling fluid in the head.

Argument

The new reference character will be added to the drawing, and the leader of reference character 28 will be changed so that it is perfectly clear that it designates the tip as a whole. This disposes of the object that claims 3 to 13 are for separate inventions, and it is believed that a favorable action on the merits thereof may be given.

The rejection of claim 2 is not understood. The Examiner says that the distinguishing features mentioned (in the last argument) are not found in the claim. It is believed that all the distinguishing features to which attention was called are present in the claim. The claim has been amended, however, so that possibly the language is clearer than before. The presence of three conduits in the head, one for combustible gas, one for combustion-supporting gas, and one for a third gas, either cutting oxygen or cooling fluid, is set forth. Also the mixing passage in the tip and the inlets therefor communicating with the proper conduits in the head. Also the inde-
[fol. 333] pendent longitudinal passage in the tip,—for cutting oxygen or cooling fluid as the case may be. Also the conical seats, and two annular communication-establishing passages or grooves between these seats, placing the independent longitudinal passage and one kind of inlet in the tip in communication with the proper conduits in the head. In Williams there is no conduit for cutting oxygen in the head; and the passage for this oxygen in the tip is not supplied from the head, but from a pipe which is coupled to the forward part of the compound tip. The applicant is confident that the Examiner will find the substance of the claim entirely different from anything in Williams. Allowance of the claim is accordingly asked. Should the Examiner find any ground of objection, will he be so good as to set it forth specifically

We now come to the first claim, which has been rejected, either

[*Words and figures enclosed in brackets erased in copy.]

on Bruckner alone, or on Bruckner in view of Williams. The first ground of rejection will now be considered.

The Examiner has previously raised the question as to whether the claim defines over Bruckner. It is submitted that it does, clearly. Bruckner shows a very acute angle, the inclination of the sides being very gentle. There can be no question that this seating portion of the tip is correctly described as having a gentle taper. The claim calls for abrupt-angled conical seats. This is something which the seats of Bruckner distinctly are not. There is a real difference, not of language only, between a gentle taper and an abrupt-angled cone. The taper of the Bruckner tip and socket must stick, and the harder they are forced together by the screw coupling and the longer the tip remains in the socket during use, the more immovably will they be jammed, so that it may be [fol. 334] practically impossible to remove the tip after the coupling is unscrewed. The claim specifies that the abrupt-angled conical seats are freely-separable; if anything, the harder they are forced together, the more the reaction of the socket tends to force the tip out, so that it is absolutely impossible to cause the tip to stick, no matter how tightly the coupling is screwed. As soon as the coupling is unscrewed, the tip and socket must fall apart. This is not a mere difference in degree. It is a radical difference in structure. There cannot be a difference in degree only when two devices operate in diametrically opposite ways. "It is not every change of form and proportion which is declared to be no discovery, but that which is *simply* a change of form and proportion, and nothing more. If, by changing the form and proportion, a new effect is produced, there is not simply a change of form and proportion, but a change of principle also." Davis v. Palmer, 2 Brock. 298. "Under our law a patent cannot be granted merely for a change of form. * * * Merely to change the form of a machine is the work of a constructor, not of an inventor; such a change cannot be described an invention. Nor does the plaintiff's patent rest upon such a change. To change the form of an existing machine, and by means of such change to introduce and employ other mechanical principles or powers, or as it is termed, a new mode of operation, and thus attain a new and useful result, is the subject of a patent. Such is the basis on which the plaintiff's patent rests." Winans v. Denmead, 15 How. 340.

The truth of the matter is that there is a critical angle, all angles less than which will cause sticking, and more sticking the greater the pressure, and all angles greater than which are incapable of sticking, no matter how great the pressure. Experiment seems to show that this critical angle is in the neighborhood of 13°. It has demonstrated that the gentle taper of Bruckner is well under the critical [fol. 335] angle, and that a tip and socket such as illustrated in the patent is useless because of the practical impossibility of separating the head and tip. As the Examiner is probably aware a torch outfit always includes a set of tips, from five in number upward, which are interchangeable in the head. This is absolutely necessary, because different kinds of work demand different sizes of flame, it be-

ing impossible to effect a weld properly except with a flame of appropriate size. On different parts of the same job different tips must often be used. Therefore, a torch is practically inoperative, if its tips are not readily removable and replaceable. The angle shown by way of illustration in the drawing of this application is well above the critical angle. Such a tip and socket cannot stick; therefore, the tips may be changed instantly. These considerations make it obvious that there is not a mere different in degree between the Whitford and Bruckner joints, but a real difference in principle and structure; moreover that it is not a question of a particular angle, that is, of a specific number of degrees, but of an angle having certain characteristics fully set forth in the specification and claim, and an illustration of which is given in the drawing.

It is interesting to consider just what changes "in form and proportion" the courts have held to involve invention. There is the leading case of Winans v. Denmead *supra*, where all the patentee did was to make his car body of the form of a frustrum of a cone. Surely, the Supreme Court would not have held this patent invalid if the prior art had disclosed a car body having a mere gentle taper. The principle would have been lacking in such a structure. The Court would undoubtedly have dismissed such alleged prior anticipation as a superficial or accidental similarity only. It would have been as reasonable to say that the conical car body was anticipated [fol. 336] by the old car bodies with straight sides, because there would be a mere difference of degree between a straight side and an inclined side, geometry teaching us that a straight line may be regarded as a straight angle, an angle of 180°. Clearly all angles are not substantially the same thing, differing in degree only. If a structure with one angle will do something that a structure with another angle will not, or *vice versa*, the difference in the angles makes a difference in principle, and, therefore, a real difference in structure.

Then there is the case of Mabie v. Haskell, 2 Cliff. 507. There the novelty of the invention lay wholly in changes in form, which might seem to be mere differences of degree, but which the court found to produce new results. The following is an extract from the decision:

"On the contrary, it is quite clear that what the inventor claims is the forming the last as described, that is, that the toe of the last shall be elevated higher than what was usual prior to the date of the invention, and that the back of the heel shall be thrown forward, as shown in the drawings, and that the last 'formed in the manner specified,' shall be as short or slightly shorter in the first measurement described in the claim than in the second measurement. Carefully examined, it is clear that it is a patent for the peculiar form of the combination, as understood in the decided cases. * * * Suffice it to say, after an attentive perusal of the testimony, I am of the opinion that the invention in controversy is both new and useful."

"Elevating the toe higher than usual," "throwing the back of the heel forward," "the last being as short or slightly shorter in the first measurement than in the second measurement"; if these changes involved invention, why does not applicant's change with its highly important change in result?

The Examiner's attention is also called to the following quotation:

[fol. 337] "The change described in the specification of Pearl is a change in the form of the spindle and a change in the form of the bobbin. It involves in the case of the bobbin a change of the location of the upper adhesive bearing from the top to about the center of the bobbin. Without a knowledge of the results accomplished by these changes they might at first glance, appear to be merely structural changes. Nothing has a greater tendency to prove that these changes involve some functional difference, beyond mere mechanical perfection and adjustment, than the greatly improved result attending the change when viewed in connection with the failure of the many experiments previously made to accomplish similar results by mere structural changes like those, for example, of diminishing the weight of the spindle in all its parts. It does seem impossible to reconcile the greatly improved results attained by the invention of Pearl with the theory that no functional, but only a mere structural, change was effected." Pearl v. Ocean Mills, 2 B. & A., 469; 11 O. G. 2.

Moving the bearing from the top to about the center of the bobbin might have been a mere difference in degree, providing new and important results had not been obtained. Just so, the difference between Whitford and Bruckner is not one of degree only, because the principle involved and the results obtained are entirely different.

In Brunswick v. Thum, 111 Fed. 904, 50 C. C. A. 61, (a comparatively recent case), the patent covered an upgrade portion inserted in a bowling-alley return-way. The court said in part, as follows:

"The improvement consists in an extremely simple, and, it would seem, perfectly obvious, application of common knowledge as to the law of gravitation. Were there nothing in the record but the bare statement of facts above set forth, we should be inclined to concur with the court below in the proposition that 'had any skilled mechanic been asked to perfect a structure that should gradually arrest the momentum of the returning ball, an ascent would obviously have been the structure needed.' But in this case, as in the Singer case, the evidence shows conclusively, and indeed without contradiction, that this very demand for an arrester of the returning ball was before skilled mechanics for many years, and yet no one before Reisky hit upon the device, which now seems obvious."

It is submitted that Whitford's invention was far less obvious than this.

Similar cases might be quoted in numbers. As was said in Albright v. Langfeld, 131 Fed 473,475, "examples of patented inven-

[fol. 338] tion which have been upheld by the courts, although they differed very little in form, mechanism, or operation from other appliances, are numerous." The case of the one-piece collar button, Krementz v. S. Cottle, 148 U. S. 556, 13 Sup. Ct. 719, 37 L. Ed. 558, is well known. Also the famous case, Edison Electric Light Co. v. U. S. Electric Lighting Co., 52 Fed. 300, where it was held invention to make the carbon filament of an electric light 1/64th of an inch or less in diameter, instead of 1/32nd of an inch or more. Also, Davis v. Parkman, Parkman v. Davis, 71 Fed. 961, where it was held invention to give the footboard of a rowboat an upward curvature of about 45°.

In the light of all these decisions, it is submitted that there can be no other conclusion but that the important results obtained by the Whitford structure over the Bruckner device mark the difference as not one of degree merely, but one involving different principles, functions, and operation, and, therefore, amounting to invention.

Not only is the Bruckner patent not an anticipation because the difference is more than a difference of degree, but also because the Bruckner device is practically inoperative as to its taper joint. No one would use a torch, the tips of which would become stuck so that they could not be removed and replaced, or at least without great labor and loss of time. Such a torch would not fulfill one of the primary requirements for such apparatus. It would be unsalable. Applicant's abrupt-angled conical joint is designed to afford absolutely tight seals, on the one hand between the oxygen and acetylene before entering the tip, and on the other hand between these gases and the outside atmosphere, and at the same time to be *freely separable* when the coupling is loosened. The Bruckner joint is incapable of operating in this manner. "However close the [fol. 339] resemblance between some prior alleged invention, even when put in actual use, and the patented invention, if such alleged prior invention was not operative, and failed to produce the beneficial results sought and produced by the patent, it would not constitute prior invention. In such case the patented invention cannot be regarded as old." General Electric Co. v. Wise, 119 Fed. 922,926. "A device which does not operate on the same principle cannot be an anticipation." Los Alamitos Sugar Co. v. Carrol, 173 Fed. 280,284. "A patent for an operative and useful device is not anticipated by a prior device which is not operative, although the parts and combination may be similar." Syl. Hale & Kilburn Mfg. Co. v. Oneonta, Cooperstown & Richfield Springs Ry. Co., 129 Fed. 598. "When a patented process or machine proves a failure, is inoperative, and another follows, and is a success in its operation, the latter is a new invention and patentable, even though we have the same machinery or parts of machinery, but they are combined or put together in a new way; and this is true even if the latter combination closely follows and resembles the first, provided there be a difference. In such cases, it is evident that the later patentee has succeeded where the other failed; that he has discovered or invented the desired thing to accomplish a new and a useful result; that his change, however unimportant it may seem to the observer, is the key to the whole

situation. In such case the defense of anticipation, of prior use, or prior invention is not made out." Kirchberger v. American Acetylene Burner Co., 124 Fed. 764, 777.

The following decision is particularly interesting, because the court took the ground that structures that became wedged and jammed in action were failures. Hale & Kilburn Mfg. Co. v. Oneonta, Cooperstown & Richfield Springs Ry. Co., 129 Fed. 598.

[fol. 340] "The desideratum is to obtain a uniform movement of the back and seat so as to lock the same rigidly after the back is turned. *This is absolutely essential to the successful operativeness of the seat. Failure in this respect is apt to jam or wedge the seat; displacing the alinement and the adjusting mechanism, resulting in temporary annoyance, as well as some inconvenience to the manipulator.*" Extract from page 599 (underlining our own).

"The conclusion reached upon this point is that the defendant has failed to establish the practicability of the structure claimed to anticipate the patent in suit, and, as the idea of a more perfect car seat has been successfully embodied in the patent by Hale, he must be acknowledged the real inventor. As the prior invention upon which defendant relies was not capable of practical operation, the combination of old elements found in the Hale patent correlated for adaptation to a new and useful purpose, is entitled to the protection of the patent laws." Extract from page 601.

It is submitted that, with the substitution of a few terms, this decision might have been written for the present case. The conclusion must be that the Bruckner patent is not a valid reference, either used singly or in combination with Williams. The taper joint of Bruckner is not "successfully operative;" it is an absolute failure, and a failure is a cipher as far as anticipating or showing lack of invention in a later, successful device is concerned. The Williams patent does not anticipate the claim; certainly it cannot be fortified by the addition of a patent of no effect as far as the features in question are concerned. This is as clear as that one and nothing can be nothing more than one. It is apparent, therefore, that the rejection on Bruckner and Williams is insufficient. However, a word or two as to this Williams patent.

The claim calls for a head and tip having, respectively, internal and external, abrupt-angled, freely-separable conical seats, *said seats having an annular channel formed between them intermediate their length for placing one kind of inlet in communication with the corresponding conduit in the head, the portions of the seats at opposite sides of said channel affording inner and outer gas-tight seals of ample width.* In other words applicant's joint is designed to be [fol. 341] non-sticking and freely-separable, and to afford both inner and outer gas-tight seals in the form of frustums of a cone, that is, a seal between the oxygen and acetylene before entering the tip, and another frusto-conical seal between the gases and the atmosphere. With this joint, the applicant attains what has long been desired, perfect seals, both inner and outer, without the use of packing, together with perfectly free separation of the seats when the coupling

is released. All of this is essential to a completely successful joint between the head and removable and replaceable tip of an oxy-acetylene torch. This is not an aggregation of features, there is nothing divisible from the rest, it is a unitary structure, and it marks a really great advance in the art. The Examiner must remember that this is no ordinary art. The gases employed, the explosiveness of the mixture that may be formed, the excessively high temperature produced by the aid of this small apparatus, the absolute necessity for maintaining an exact mixture within exceedingly narrow limits, under the penalty of spoiling the weld, the imperative necessity of guarding against even the smallest leaks, all mark this as an art in which exactitude must be primary. As against a completely successful, thoroughly worked-out apparatus, partial resemblances and incomplete approaches have no significance. It must be all or nothing. We cannot drop one or more of the features of the Whitford joint, without destroying its usefulness and dissolving its identity. No more can we say that something in the prior art showing part of its features can in any way cast a doubt on its novelty. As to all those features underlined at the outset of this paragraph, the Williams patent is lacking. It has no annular communication-establishing channel *formed between conical sealing seats.* It does not have frusto-conical seals at both sides of this [fol. 342] channel, affording both inner and outer gas-tight seals, without packing. In consequence Williams is forced to resort to packing, as shown at 23. Now packing has been tried in these torches and has been found wanting. A completely successful torch cannot have packing at the joint between the removable and replaceable tip and the head. As far as affecting the patentability of claim one is concerned, the Williams patent, also, is a cipher and a failure. By not having all of the features of applicant's joint, it falls absolutely short of "successful operativeness."

"It cannot be said that a patent for a device which fails to accomplish the desired end is an anticipation of one which successfully accomplishes it." Farmers' Mfg. Co. v. Spruks Mfg. Co., 127 Fed. 691, 693.

Nor can two failures added together make a success. Both Williams and Bruckner fall far short of the completeness of applicant's invention. Now that he has shown the combination wherein lies complete success, it is easy to pick features some from one reference and some from the other and to say that such difference as remain are merely those of degree. Even granting that these patentees approached somewhere near to Whitford's invention, they did not discover it, nor did they publish anything to the world that would make it obvious "It may have been under their very eyes, they may almost be said to have stumbled over it, but they certainly failed to see it, to estimate its value, and to bring it into notice." Loom Co. v. Higgins, 105 U. S. 580, 591, 26 L. Ed. 1177. "It was apparently a very simple change, but it converted 'imperfection into completeness.'" Hess-Bright Co. v. Standard Roller-Bearing Co.,

177 Fed., 435, 437. "Under such circumstances courts have not been reluctant to sustain a patent to a man who has taken the final step which has turned a failure into a success. In the law of patents it is the last step that wins." Mr. Justice Brown, in re [fol. 343] Barbed-Wire Patent, 143 U. S. 275, 282, 12 Sup. Ct., 443, 450, 36 L. Ed. 154.

In order the more fully to appreciate the importance of the invention it may be well to take a little excursion back into the beginning of the art. It will be well to realize that there has been nothing obvious about this art from the start of things. It was a case of dealing with a practically new combustible mixture, having many peculiar properties. The apparatus employed in carrying out oxyacetylene welding and cutting may seem simple, but it has required the expenditure of many thousands of dollars and much time to produce torches on whose operation reliance could be placed. In the early days of the art an author writing in La Genie Civil, volume 43, page 340, made the following observations as to the difficulties encountered:

"At the outset it may seem astonishing that since the appearance of acetylene one has waited until the present to recognize the advantages resulting from the combination of this gas with pure oxygen. Such an omission is as little flattering to the numerous savants who have from the outset studied of the purposes of acetylene, as to the practical men who have worked out its applications.

In reality it is solely the difficulties of realizations which have delayed the progress of this method. * * *

Unluckily the attempts at combustion of acetylene with oxygen in employing the usual blow-pipes, has resulted only in an incomplete success; in that in the apparatuses for exteriorly mixing there formed immediately at the end of the apparatus, an abundant deposit of graphitic carbon, in some seconds the flame being suppressed and replaced by an incandescent mushroom; as for the apparatus with interior mixing, the great explosibility of the mixture of oxygen and acetylene rendering impossible their employment without risking serious accidents because of the relatively great explosive volume which generally exists in these apparatuses."

It was the patent to Camille Rodrigues-Ely and Emile Gauthier, Number 880,099, of February 25th, 1908, that solved the problem as to "interior mixing." This patent introduced the removable [fol. 344] and replaceable tip, having all the passages and ports for effecting proper mixing inside this tip and not in the head or body of the apparatus, a seal being interposed between the conduits in the head so that all possibility of mixing before entering the tip was avoided. In this way, there could exist only a small quantity of mixture in the apparatus, and this in the removable tip. Of this same type is the apparatus of the present invention, which is directed to the production of a perfect joint between the head and tip. This production of a thoroughly satisfactory joint between the head and tips of oxyacetylene torches has been the object of

much experiment and endeavor. It is believed that a practically perfect joint has now been attained, and its importance cannot be overestimated. It is not too much to say that it is the greatest advance in the art of oxyacetylene welding since the Rodrigues-Ely patent first made interior-mixing torches a fact and not a theory.

In view of these considerations, it is believed that the Examiner will have no difficulty in allowing the first claim. His favorable action on the remaining claims is likewise solicited.

Very respectfully, J. F. Brandenburg, Attorney for Applicant,
2 Rector Street, New York, August 4, 1911.

[fol. 345] Div. 30, Room 152

Address only "The Commissioner of Patents, Washington, D. C."

Paper No. 10

All communications respecting this application should give the serial number, date of filing, and title of invention.

E. M. S.

Department of the Interior,
United States Patent Office,
Washington, September 9, 1911.

John W. Whitford, % J. F. Brandenburg, 2 Rector St., New York, N. Y.:

Please find below a communication from the Examiner in charge of your application Serial No. 612,189, filed March 4, 1911, Welding or Cutting Apparatus.

E. B. Moore, Commissioner of Patents.

In response to communication filed August 11, 1911.

Reference character 280 inserted by amendment to page 7, line 18, does not appear on the drawing. Applicant's statement of intention to add the new reference character and to change the leader of reference character 28, is noted.

The rejection of claim 1 on patent to Bruckner #935,458 of record, is repeated. The description "abrupt angled conical seats" does not distinguish patentably from the reference. While it is true that the patentee's seats are of a slighter angle than applicant's, and therefore have a greater tendency to stick, abrupt angled conical joints are of common knowledge, and the substitution of abrupt angled seats involve merely the substitution of one well known seat for another. Moreover, applicant is not the first to apply an abrupt angled seat to this particular art. Such a seat is shown in patent to Williams #981,342, of record. In the decisions referred to by applicant to sustain his views of patentability, the slight changes referred to were made by the patentee, and were not merely selected devices common in various arts.

Claims 2 and 3 appear allowable.

Claim 4 is rejected, as the recitation "through the sealing seats" is inaccurate.

[fol. 346] Claims 4 and 5 are rejected on patent to Williams #981,342 of record, as they fail to recite any structure not disclosed in this patent.

Claims 6 and 7 are rejected as applicant fails to disclose "means for leading the cooling fluid through said seats."

Claim 8 is rejected as applicant fails to disclose "inlets from said sealing seat" or "a conduit opening therethrough". The conduit opens into the annular passage.

Claim 9 is rejected as applicant fails to disclose "inlets from said sealing seat". The parts forming the "annular passage" should be recited.

Claims 10 and 11 are rejected on patent to Williams #981,342 of record.

Claim 12 is rejected on patent to Delcampe, #894,195, July 28, 1908—158-13.5 (x5).

Claims 13 and 14 appear allowable.

Claim 15 is objectionable in reciting a "shoulder" inferentially. The parts forming the annular groove should be recited. Claim 15 appears to contain allowable subject matter.

M. R. Sullivan. C. J. S.

[fol. 347] Oct. 27, 1911,
Division XXX.

Paper No. —

In the United States Patent Office

Div. 30, Room 152

In the Matter of the Application of John W. Whitford for a Patent on Improvements in Welding or Cutting Apparatus. Filed March 4, 1911. Serial No. 612,189

Hon. Commissioner of Patents, Washington, D. C.

SIR: Replying to Office action of September 9, 1911, the above-entitled case is hereby amended as follows:

Claim 1, line 8, before the comma, insert:

E^1. of a conicity greater than the critical angle of sticking.

Add the following claim:

E^2. 2. A device of the character described comprising a head provided with a conical socket and separate conduits for combustible and combustion-supporting gases, a burner tip provided with a conical rear portion, a mixing and discharge

passage, and separate inlets for the two kinds of gases to said passage, the inlet for one of the gases opening through said conical portion, the surfaces of said conical tip portion and conical socket being formed as similar abrupt-angled freely-separable conical seats of a conicity greater than the critical angle of sticking, these seats having portions at opposite sides of the inlet through the conical portion of the tip affording inner and outer gas-tight seals of ample width, and means for forcing the tip and head together, said tip being held in place by said means alone.

Renumber claims 2 and 3 as 3 and 4.
Cancel claims 4 and 5, which are hereby rewritten as follows:

E³. [fol. 348] 5. A device of the character described, comprising a head and a removable and replaceable tip carried and supplied thereby, said head and the rear part of the tip having co-operating sealing surfaces formed thereon, said tip being provided with a mixing passage, a discharge orifice therefor at the forward part of the tip and inlets to the mixing passage for the two kinds of gases to be mixed leading from said rear part of the tip, said tip having also therein a longitudinal passage which is independent of said mixing passage and has its inlet at said rear part of the tip and its outlet at the forward part of the tip, and said head being provided with three separate conduits which communicate, respectively, with the two kinds of inlets to the mixing passage and the inlet to said independent passage, said sealing surfaces forming seals between the gases from the three conduits where the conduits communicate with the said inlets and also between the gases and the atmosphere.

6. A device of the character described, comprising a head and a removable and replaceable tip carried and supplied thereby, said head and the rear part of the tip having co-operating sealing surfaces formed thereon, said tip being provided with a mixing passage, a discharge orifice therefor at the forward part of the tip and inlets to the mixing passage for the two kinds of gases to be mixed leading from said rear part of the tip, said tip having also therein a longitudinal passage which is independent of said mixing passage and has its inlet at said rear part of the tip and its outlet at the forward part of the tip, and said head being provided with three separate conduits which communicate, respectively, with the two kinds of inlets to the mixing passage and the inlet to said independent passage, said sealing surfaces having spaced annular communication-establishing grooves formed therein, and portions of the said surfaces at opposite sides of the [fol. 349] grooves constituting seals between the different kinds of gases and between the gasses and the atmosphere.

√Cancel claims 6 to 9, which are rewritten as follows:

E⁴. A device of the character described, comprising a head and a removable and replaceable tip supported and supplied thereby, said tip having a mixing passage discharging at its forward part and inlets thereto at its rear part for the two kinds of gases to be mixed, said tip having also an independent longitudinal passage for a ∧ [gas for cooling],* said head having conduits communicating with said inlets and a third conduit communicating with said passage for cooling ∧ [gas]* and the head and tip being further provided with coöperating sealing seats, sealing the three kinds of [gases]* ∧ from each other and from the atmosphere where the conduits in the head communicate with the said inlets and passage.

[7.*] A device of the character described, comprising a head and a removable and replaceable tip supported and supplied thereby, said tip having a mixing passage discharging at its forward part and inlets thereto at its read part for the two kinds of gases to be mixed, said tip having also an independent longitudinal passage for a ∧ [gas for cooling],* said passage being annular in cross-section and encircling said mixing passage, said head having conduits communicating with said inlets and a third conduit communicating with said passage for cooling ∧ [gas]*, and the head and tip being further provided with coöperating sealing seats, sealing the three kinds of ∧ [gases]* from each other and from the atmosphere where the conduits in the head communicate with the said inlets and passage.

(See fol. 1389.)

√Cancel claim 10, which is rewritten as follows:

E⁵. [fol. 350] 9. A device of the character described, comprising a head and a removable and replaceable tip having a mixing passage with an outlet at the forward part of the tip and inlets at the rear part of the tip for the two kinds of gases to be mixed, said tip having also a longitudinal passage independent of the mixing passage having an inlet at the rear part of the tip and discharging at the forward part thereof, the head being provided with three conduits for supplying the inlets to the mixing passage and said independent passage.

[Matter enclosed between rules erased in copy.]
[*Words and figures enclosed in brackets erased in copy.]

Renumber claim 11 as 10, and line 4, after the comma, insert: *and.*

Renumber claim 12 as 11. Lines 4 and 5, cancel "passages supplied by said conduits" and insert:

E⁸. *a mixing passage with inlets and an independent passage with an inlet supplied by said three conduits.*

Renumber claims 13 and 14 as 12 and 13.

Renumber claim 15 as 14. Line 5 thereof, after "having" insert: *a shoulder on its rear part and;* line 6, strike out "a" and insert: *said;* lines 6 and 7, strike out "at the inner part of the body"; line 9, strike out "there being."

Remarks

The Examiner's reasons for rejecting claim 1 on Bruckner and Williams of record are noted, but it is still believed that the rejection is erroneous. The Examiner attempts to differentiate this case from those referred to in the last argument, by saying that the slight changes in those cases were made by the patentees and were not merely selected devices common in various arts. This contention will not withstand scrutiny. In the leading case of Winans v. Denmead, [fol. 351] 15 How. 340, the sole novelty was the making of a car body in the form of a truncated cone, which the Court held to be broad enough to include, also, a pyramidal form. Is it conceivable that before the date of this invention conical or pyramidal receptacles were not known. This is the common form of hoppers, for example, and hoppers are not a recent invention. The patentee's claim to invention rested not merely on having selected a form, which could not be novel *per se*, but in the successful application of this form to a particular art, where it conferred very special advantages. In Farmers' Mfg. Co. v. Spruks Mfg. Co., 127 Fed. 691, invention related to a veneer barrel, of true barrel shape, that is with a continuous curve from top to bottom. The Court sustained this patent largely because the veneer barrel references relied on did not have the true barrel shape which is essential to strength. Not only was the true barrel shape not new with this patentee but his claim to novelty resided in adhering to the shape which age-long experience had demonstrated to be necessary. In Brunswick v. Thum, 111 Fed. 904, the patent covered an upgrade portion inserted in a bowling-alley return-way, for arresting the returning ball. Certainly upgrades were known before this patentee. Of course persons had observed that a ball rolling downhill has its velocity diminished on an opposite upward slope. Everyone knows that upgrades in railways retard locomotives or electric cars; and upgrades are common in scenic-railways. All of this was old before the patent in suit. But the Court held that it required invention to apply an upgrade in this particular art.

The Court in Winans v. Denmead did not hold that the Winans patent disclosed no invention over ordinary car bodies in view of the fact that a truncated conical shape was known in various arts; and it

[fol. 352] is submitted that the Court would not have pursued this line of reasoning even had the prior art disclosed a car body having a mere gentle slope or taper. Such a prior car body would have formed no better basis from which to argue lack of invention, than the ordinary vertical-walled car bodies because a mere slight taper would be no more suggestive of the principles involved in the Winans patent than a vertical-walled body. It is submitted, therefore, that Bruckner in view of what the Examiner alleges as common knowledge could not constitute a valid ground for rejecting claim 1 of this application.

But the novelty of this invention is not merely the employment of abrupt-angled conical seats of a conicity greater than the critical angle of sticking. His invention *does* reside in the employment of such seats in combination with lateral inlets opening through the seats intermediate their ends, so that the portions of these abrupt-angled seats at opposite sides of the inlets constitute inner and outer seals, preventing both mixing of the gases with each other and leakage of the gases into the atmosphere. This structure is an entity, because these features together constitute the solution of the problem of obtaining a completely satisfactory and operative joint between the head and the removable and replaceable tip of oxy-acetylene welding or cutting apparatus. Bruckner has no bearing on this claim because it not only does not have seats of a conicity greater than the critical angle of sticking, but seats of a diametrically-opposite character, having an angle less than the critical angle of sticking. It is not a question of the seats sticking more or less. It is the physical impossibility for applicant's seats to stick, and Bruckner's seats must necessarily stick, and stick the harder the more they are forced together. The Bruckner joint is unquestionably inoperative. Joints of this character have been tested, and simply could not be used for [fol. 353] these torches, however suitable they may be for other purposes. The Examiner must keep in mind that the conditions of this art are peculiar. Now it is well settled that an inoperative device cannot stand in the way of a later successful invention. The Examiner is asked to read again the decisions on this head quoted in the last argument. In view of them it is manifestly improper to cite Bruckner against claim 1.

Williams fails completely as a reference because his seats do not form internal and external seals at opposite sides of the lateral inlets. Moreover, as pointed out in the last argument this patent is little better than inoperative, because by reason of its sealing surfaces being at one side only of the lateral inlets the patentee must rely on packing to seal against the atmosphere. Packing has demonstrated its unfitness for the joint between the head and replaceable tip of an oxy-acetylene torch.

Neither of these references is an anticipation by itself; and no authority is known for associating a manifestly inoperative patent with another patent to make out a case of lack of invention. Applicant is the first to produce the combination of claim 1, and in so doing he has devised a construction far better in every way than anything that has preceded it. In view of these considerations it is submitted that any doubt must be resolved in the applicant's favor. Al-

lowance of claim 1 as amended is therefore solicited. New claim 2 is drawn to similar subject-matter and is equally allowable.

The other claims as amended are believed to be clearly allowable. Neither Williams nor Delcampe shows an independent longitudinal passage formed in the same tip which has a mixing passage and its [fol. 354] inlets. The structure claimed is manifestly novel and it is not seen how the language can describe it any more definitely.

Probably the rejection of former claim 11, now claim 10 was inadvertent, as Williams has no cooling passage.

Very respectfully, J. C. Brandenberg, Attorney for applicant.

October 25, 1911, 2 Rector Street, New York.

[fol. 355] Address only the Commissioner of Patents, Washington, D. C.

Serial No. 612,189

C. W. J.

Department of the Interior,
United States Patent Office,
Washington, Nov. 16, 1911.

John Walter Whitford, Assor., c/o J. F. Brandenburg, New York, N. Y.:

SIR: Your application for a patent for an improvement in Welding or Cutting Apparatus, filed March 4, 1911, has been examined and allowed.

The final fee, twenty dollars, must be paid not later than six months from the date of this present notice of allowance. If the final fee be not paid within that period the patent on this application will be withheld, unless renewed with an additional fee of $15, under the provisions of Section 4897, Revised Statutes.

The office delivers patents upon the day of their date, and on which their term begins to run. The printing, photolithographing, and engrossing of the several patent parts, preparatory to final signing and sealing, will require about four weeks, and such work will not be undertaken until after payment of the necessary fee.

When you send the final fee you will also send, distinctly and plainly written, the name of the inventor and title of invention as above given, date of allowance (which is the date of this circular), date of filing, and, if assigned, the names of the assignees.

If you desire to have the patent issue to assignees, an assignment containing a request to that effect, together with the fee for recording the same, must be filed in this office on or before the date of payment of final fee.

After issue of the patent uncertified copies of the drawings and specifications may be purchased at the price of five cents each. The money should accompany the order. Postage stamps will not be received.

Final fees will not be received from other than the applicant, his assignee or attorney, or a party in interest as shown by the records of the Patent Office.

Respectfully, E. B. Moore, Commissioner of Patents.

[On left margin:] In remitting the final fee give the serial number at the head of this notice.
[On right margin:] Uncertified checks will not be accepted.

[fol. 356] 2—073

Department of the Interior,
United States Patent Office,
Washington, D. C., Apr. 3, 1912.

Petition

Application of J. W. Whitford.
Serial No. 612,189.
Invention: Welding or Cutting Apparatus.
This petition is referred to the Examiner in charge of Division 30 for recommendation. In case he recommends adversely he will state his reasons therefor.

E. B. Moore, Commissioner of Patents.

[fol. 357] Hon. Commissioner of Patents.

SIR: It is respectfully recommended that the above amendment be entered under Rule 78.

M. R. Sullivan, Examiner, Div. 30.

April 4, 1912.
O. K. Notice sent.

Approved Apr. 4, 1912. F. A. Tennant, Assistant Commissioner.

[fol. 358] In the United States Patent Office

Re Application of John Walter Whitford for a Patent on Improvements in Welding or Cutting Apparatus. Filed March 4, 1911. Serial No. 612,189. Allowed November 16, 1911.

April 2, 1912.

Hon. Commissioner of Patents, Washington, D. C.

SIR: Permission is requested under Rule 78 to amend the above-entitled application as follows:

Cancel claims 3, 4, 5, 6, 9 and 11.
Claims 3, 4, 5, 6 and 9 will be transferred to a divisional application, with a view to preserving the best line of division between the two cases. Claim 11 is found to be a substantial duplicate of claim 9 and will not be transferred.
Claims 7 and 8, line 6 of each, cancel "gas for cooling" and insert: *gaseous cooling medium.*
Claim 7, line 8, and claim 8, line 10, cancel "gas" and insert: *medium.*

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41. _____
42. _____
43. _____
44. _____
45. _____
46. _____
47. _____
48. _____
49. _____
50. _____

361

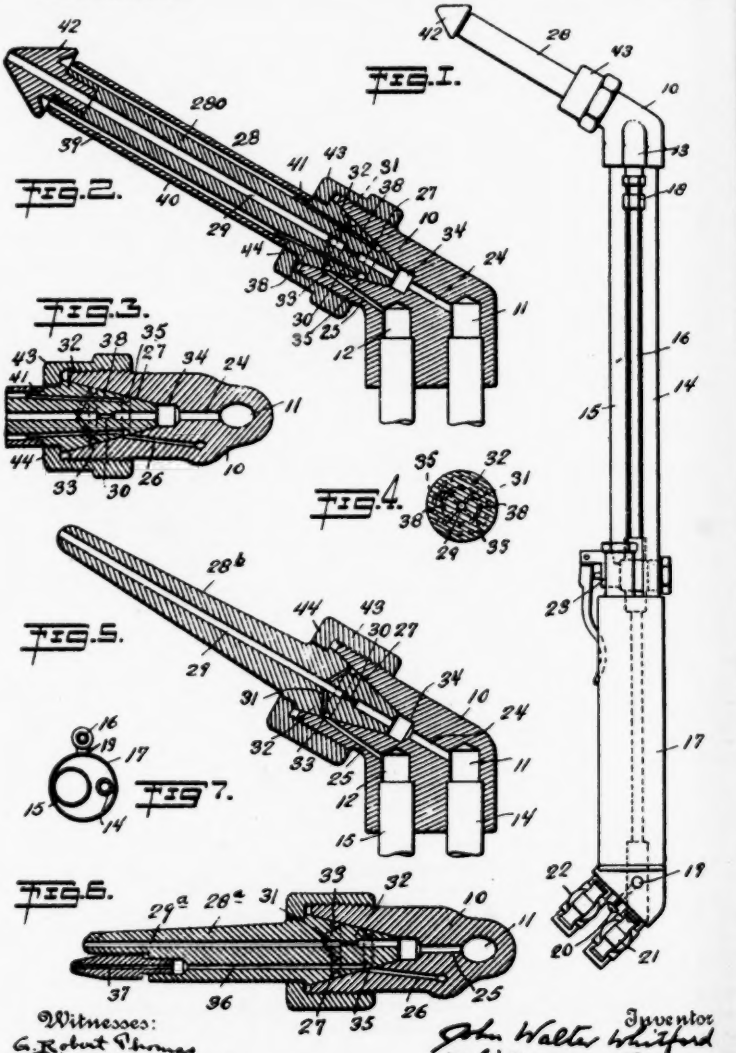
J. W. WHITFORD.

WELDING OR CUTTING APPARATUS

APPLICATION FILED MAR. 4, 1911.

1,028,166.

Patented June 4, 1912.



Witnesses:
G. Robert Thomas
Joseph A. Brady Jr.

Inventor
John Walter Whitford
By his Attorney
O. B. Sunderland

COLUMBIA PLANOGRAPH CO., WASHINGTON, D. C.

UNITED STATES PATENT OFFICE.

JOHN WALTER WHITFORD, OF JERSEY CITY, NEW JERSEY, ASSIGNOR TO DAVIS-BOURNONVILLE ACETYLENE DEVELOPMENT COMPANY, OF PIERRE, SOUTH DAKOTA, A CORPORATION OF SOUTH DAKOTA.

WELDING OR CUTTING APPARATUS.

1,028,166. Specification of Letters Patent. Patented June 4, 1912.

Application filed March 4, 1911. Serial No. 612,189.

To all whom it may concern:

Be it known that I, JOHN WALTER WHITFORD, a citizen of the United States, a resident of Jersey City, in the county of Hudson and State of New Jersey, have invented certain new and useful Improvements in Welding or Cutting Apparatus, of which the following is a specification.

This invention relates to apparatus for heating, brazing, welding or cutting, or otherwise treating, metals by means of jets of gases directed upon the work.

The apparatus is designed more especially for using oxygen and acetylene under pressure. Such a device is commonly known as an oxy-acetylene torch or blow-pipe. In such apparatus it is customary to supply a number of removable and interchangeable tips for each torch or head, these tips varying in size and in the dimensions of the passages therein so that flames of different sizes and qualities for different kinds of work may be had.

In the form of apparatus which has proved practically successful the mixing of the combustible and combustion-supporting gases for the heating or welding flame is effected in the tip, the gases being kept separate until after they enter the tip. In this form of apparatus it is of the greatest importance to provide sure seals at the joint between the head and tip, both to seal the different kinds of gases from each other and from leakage outside of the torch.

One of the objects of the invention is to provide improved sealing means for this purpose.

The object is, further, to provide seals for as many ducts as may lead from the head into the tip.

Another object of the invention is to provide means for leading gaseous fluid other than the oxygen and acetylene for the flame through the head into the tip.

A special object is to lead such fluid through the sealing seats provided at the junction of the head and tip. Such fluid may be, for example, oxygen, usually under higher pressure than the other oxygen stream, for cutting, or air or other gaseous medium for cooling the tip and the gases passing therethrough.

The invention consists first in a detachable and interchangeable tip having means for mixing the gases for the flame therein, and a head for supplying the tip with these gases, the tip and head being formed with similar external and internal similar abrupt-angled conical seats, in which is formed an annular channel or channels for establishing communication at all relative positions of the head and tip. This annular channel, while preferably narrow for economy of space, affords a chamber of suitable capacity for supplying the communicating inlet or inlets in the head.

The conical seats contemplated by this invention have the distinctive property of separating freely upon removal of the external axially directed pressure holding the tip to the head. Such a structure is entirely different in nature and properties from a mere gentle taper. Such a taper joint is self-holding, and the less the taper the easier it is to wedge the male member irremovable into its taper socket. Such a taper joint is therefore inoperative for an oxy-acetylene blow-pipe, one of the first requirements of which is ease in interchanging the tips. When it is considered that the head and tip are drawn together by screw means, with which there is always a tendency to exert more force than is necessary, and that the head and tip remain clamped together for periods of rest that are often considerable and during which the joint is more or less effected by heat and probably also by the gases, it will be apparent why a gently tapered joint would render a torch useless because of the jamming of the tip. But with a conical joint of sufficiently abrupt angle the properties are exactly reversed. Whereas with such a taper joint as described, the greater the external compression the more the reaction of the socket, owing to friction, locks the male member against removal, with this conical joint the more the external compression the more the reaction tends to force the tip out of the socket. Hence, while with conical seats absolutely gas-tight seals may be formed at both sides of the annular channel under the action of a separate compression member, such as a screw coupling, the tip is held in place by this coupling and not by the grasp of the conical socket, and upon release of the coupling the seats separate freely. Such conical seats should, however, be formed of sufficient acuteness of angle and

of sufficiently long sides to insure ample seals at both sides of the annular channel or chamber, or alternating with as many annular channels as may be employed.

The invention also consists in a torch or the like in which a gaseous fluid, other than the oxygen and acetylene for the flame, is brought into the passage therefor in the tip, through the head, and preferably through the sealing seats between the head and tip, such seats being conical as just described or even of other form. Thus, the invention includes both a novel form of air-cooled torch and a novel form of cutting torch, according to whether the gaseous fluid is air or other gaseous medium for cooling led to a suitable passage in the tip, or oxygen for cutting led to a special passage in the burner tip arranged to play upon the work.

In the accompanying drawings showing by way of illustration certain preferred embodiments of the invention: Figure 1 is a side elevation of the torch with an air-cooled tip; Fig. 2 is an enlarged section through the head and tip of this form of torch; Fig. 3 is a section at right angles to the last, the tip being partly broken away; Fig. 4 is a cross-section through the rear conical portion of the tip shown in these views; Fig. 5 is a view corresponding to Fig. 2, showing a welding tip without air-cooling; Fig. 6 is a section on a plane corresponding to that of Fig. 3 showing a cutting tip in the head; and Fig. 7 is a cross-section through the handle portion of the torch.

In these views the numeral 10 indicates the head, which is preferably a casting of suitable form. Three sockets 11, 12 and 13 are formed in the lower portion of this head, and three pipes 14, 15 and 16 have their ends secured therein. The pipes 14 and 15 are preferably permanently, or semi-permanently secured to the head, and together with the casing 17 constitute a convenient handle for the torch. As heretofore, the portion of the acetylene pipe or conduit 15 inside this casing may be enlarged for the reception of material for protecting the acetylene generator or tank from a flash-back, while the oxygen pipe 14 merely passes through the casing as a matter of convenience. The pipe 16 may be, and preferably is, detachably connected to the head, as by means of a screw coupling 18, and with the handle, as by means of a laterally-projecting arm 19 clamped in a hole by means of a screw 20. The three pipes or conduits are provided with suitable controlling valves 21, 22 and 23. The valve 23 is preferably merely a cut-off valve, but this is not material.

The sockets 11, 12 and 13, together with the three drilled passages 24, 25 and 26 leading therefrom, constitute separate conduits in the head. The front part of the head is provided with a conical socket 27 for the tip, and the three conduits open into this socket. In the preferred construction, the oxygen conduit 24 opens axially at the back of the socket, and the conduits 25 and 26 through the side of the socket, one in advance of the other.

The tip 28, 28^a 28^b has a narrow longitudinal mixing passage or drilled opening 29 or 29^a encircled by thick walls. This passage has its discharge orifice at the front end of the tip so as to play upon the work. At the rear the tip is provided with two kinds of inlets for leading the two kinds of gases for combustion to said mixing chamber. The arrangement of these inlet passages may be varied. Preferably, there is a single axial restricted inlet 30 for the oxygen and lateral inlets 31 for the acetylene. The acetylene inlets may be, and preferably are, inclined to the mixing passage. The number and size of the inlet passages may be varied according to the particular results desired. The mixing passage 29 may be arranged axially within the tip, as shown at 29 in Fig. 2, or eccentrically, as shown at 29^a in Fig. 6.

The rear part 32 of the tip that enters the head is conical, the angle thereof and of the conical socket 27 being the same and comparatively abrupt. Both conical faces are preferably ground smooth. An annular passage, channel or recess 33 is formed within the area of these conical seats, being positioned so as to communicate directly with the acetylene conduit 25 and the acetylene inlets 31. Preferably, though not necessarily, this annular channel is formed in the conical tip portion 32. While narrow, this channel forms an edequate chamber or reservoir for the supply of the acetylene inlets. An oxygen chamber 34 may also be provided at the back of the socket 27. The zones of the conical seats at opposite sides of this annular channel form sure and ample seals, on the one hand sealing the oxygen and acetylene from each other before entering the tip and on the other hand sealing against leakage through the joint outside the torch.

The two forms of tip are provided also with a second annular passage 35 within the area of the conical seats, which annular passage may also be formed in the tip. This annular passage or recess communicates directly with the third conduit 26 in the head when the tip is in place. The conical seat sections at opposite sides of this annular communication-establishing passage form sure and ample inner and outer seals with respect to this passage, as in the other case.

In the form of tip shown in Fig. 6 the second annular passage 35 communicates with a longitudinal passage or drilled opening 36, independent of the mixing passage 29^a, which is designed to convey cutting oxygen. In the preferred construction the

portion of the tip containing this oxygen passage terminates considerably short of the front end of the tip, and the passage is continued by a removable nozzle or sub-tip 37 secured to said portion, as by being screwed therein. By this means the oxygen duct is caused to discharge alongside the duct for the heating mixture, and preferably slightly in advance thereof.

In the form of tip shown in Figs. 2, 3, and 4 the annular passage 35 communicates by means of inlets 38 with a longitudinal passage 39, annular in cross-section, which surrounds the mixing passage 29. While this sheath-like passage may be formed in a variety of ways, I prefer to secure a sleeve 40, by forcing or otherwise, on an annular shoulder 41 at the base of the body part 280 of the tip; the sleeve constituting part of the tip. When this form of tip is used and the pipe 16 is connected up with a source of air under pressure, or other suitable cooling gas, instead of oxygen for cutting as in the other instance, a cooling envelope is caused to flow along or over the tip. In order to prevent this annular stream of air from mingling with the flame, a shield 42 is attached to or formed on the front end of the tip, this shield being constructed and arranged to cause the air discharged from the passage to flow back over the tip.

In both forms of tip the base of the conical part 32 is preferably larger than the adjacent part of the tip. A coupling sleeve 43 engages threads or their equivalents on the head and by means of a flange 44 presses upon this enlarged base, so as to draw the tip into the head and hold it there.

Fig. 5 illustrates a welding tip 28ª without the air-cooling feature attached to the same form of head shown in the other views. This tip is essentially similar to the other forms of tip illustrated, except that it is provided with neither the annular air passage 39 nor the cutting oxygen passage 36, and consequently lacks also the annular passage 35.

In operation, the tips are instantly attachable to or detachable from the head. The conical seats separate at once upon unscrewing of the coupling. With the same torch body, either a cutting torch, an air-cooled torch or a welding torch without air-cooling may be had, by attaching one kind of tip or the other and by connecting with a source of air or cutting oxygen under pressure or neither, as the case may be. The oxygen and acetylene for the welding or cutting flame also preferably enter the torch under considerable pressure.

A material advantage of the torch provided with the cutting tip shown in Fig. 6 is that the tip may be swiveled in the head and then clamped so as to bring the jets [illegible] mixing passage 29ª and the cutting oxygen passage 36 into alinement with the desired line of cutting, with the heating flame in the lead, the passage 36 being always in communication with the duct in the head for cutting oxygen by virtue of the annular passage 35. It is the practice to advance the heating and cutting jets along the line of the cuts with the heating jet in the lead, and in order to do this, heretofore, it has often been necessary to hold the torch in an awkward manner. With my construction the torch can be held in the most convenient manner and the cutting tip adjusted so as to cut in any direction.

While I have shown and particularly described certain embodiments of my invention, it will be understood that many substitutions, omissions and changes may be made without departing from the invention.

I claim:

1. A device of the character described comprising a head provided with a conical socket and separate conduits for combustible and combustion-supporting gases, a burner tip provided with a mixing and discharge passage, separate inlets for the two kinds of gases to said passage and a conical rear portion, the surfaces of said conical tip portion and conical socket being formed as similar abrupt-angled freely-separable conical seats, of a conicity greater than the critical angle of sticking, said seats having an annular channel formed between them intermediate their length for placing one kind of said inlets in communication with the corresponding conduit in the head, the portions of the seats at opposite sides of said channel affording inner and outer gas-tight seals of ample width, and means for forcing the tip and head together, said tip being held in place by said means alone.

2. A device of the character described comprising a head provided with a conical socket and separate conduits for combustible and combustion-supporting gases, a burner tip provided with a conical rear portion, a mixing and discharge passage, and separate inlets for the two kinds of gases to said passage, the inlet for one of the gases opening through said conical portion, the surfaces of said conical tip portion and conical socket being formed as similar abrupt-angled freely-separable conical seats of a conicity greater than the critical angle of sticking, these seats having portions at opposite sides of the inlet through the conical portion of the tip affording inner and outer gas-tight seals of ample width, and means for forcing the tip and head together, said tip being held in place by said means alone.

3. A device of the character described, comprising a head and a removable and replaceable tip supported and supplied thereby, said tip having a mixing passage discharging at its forward part and inlets

thereto at its rear part for the two kinds of gases to be mixed, said tip having also an independent longitudinal passage for a gaseous cooling medium, said head having conduits communicating with said inlets and a third conduit communicating with said passage for cooling medium, and the head and tip being further provided with coöperating sealing seats, sealing the three kinds of fluids from each other and from the atmosphere where the conduits in the head communicate with the said inlets and passage.

4. A device of the character described, comprising a head and a removable and replaceable tip supported and supplied thereby, said tip having a mixing passage discharging at its forward part and inlets thereto at its rear part for the two kinds of gases to be mixed, said tip having also an independent longitudinal passage for a gaseous cooling medium, said passage being annular in cross-section and encircling said mixing passage, said head having conduits communicating with said inlets and a third conduit communicating with said passage for cooling medium, and the head and tip being further provided with coöperating sealing seats, sealing the three kinds of fluids from each other and from the atmosphere where the conduits in the head communicate with the said inlets and passage.

5. In a device of the character described, a tip having a mixing passage and inlets thereto for the two kinds of gases and also a longitudinal passage for gaseous cooling fluid, and a head provided with conduits for supplying said inlets and another conduit therein for leading cooling fluid to said cooling passage.

6. Apparatus of the character described, comprising a head, three separate conduits for gaseous fluids leading into said head, said conduits being extended separately within the head, and a tip provided with a mixing passage and two sets of inlets thereto supplied by two of said conduits, said tip being also provided with a passage for a cooling gaseous medium, said passage being supplied by the third conduit.

7. In a device of the character described, a head having conduits for welding gases and a conduit for a gaseous fluid for cooling, and a removable burner structure having sealing engagement with the head, said burner structure being provided with a longitudinal passage for the welding gases and an encircling longitudinal passage annular in cross-section for the cooling fluid said passages both being provided at the rear with inlets and means establishing communication between said inlets and conduits irrespective of relative rotation, and a shield on the forward end of the burner structure constructed and arranged to deflect the current of cooling fluid backward.

8. In a device of the character described, a head having conduits for welding gases and a conduit for a gaseous fluid for cooling, and a removable burner structure having sealing engagement with the head, said burner structure comprising a body having a shoulder on its rear part and a longitudinal passage therein for welding gases, a sleeve secured on said shoulder and forming with the body a passage annular in cross-section, the body part of the burner structure having inlet passages leading to said annular passage and an annular groove communicating on the one hand with said inlets and on the other hand with the conduit for cooling fluid in the head.

In witness whereof I have signed my name in the presence of two subscribing witnesses.

JOHN WALTER WHITFORD.

Witnesses:
C. B. WORTHAM,
WM. W. BARNES.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."

Claim 7, line 10, and claim 8, line 12, cancel "gases" and insert: *fluids.*

Renumber claims 7, 8 and 10 as 3, 4 and 5.

Renumber claims 12 to 14 as 6 to 8.

It is believed that the foregoing changes in language are desirable. Air is a gas, but there is a possibility that the reference to a gas for cooling might be confusing.

Very respectfully,

J. F. Brandenburg, Attorney for Applicant.

2 Rector Street, New York.

[fol. 359] $20 received May 4, 1912. Chief Clerk, U. S. Patent Office. Ck. S. .

Solicitor of U. S. and Foreign Patents

Phone Rector 599

May 3, 1912.

The Commissioner of Patents, Washington, D. C.

SIR: Enclosed please find $20, being the amount of the final fee in the matter of the application of John Walter Whitford for a patent on Welding or Cutting Apparatus, filed March 4, 1911, Serial No. 612,189, and allowed November 16, 1911.

Very respectfully, J. F. Brandenburg.

(Enclos.)

JFB/EG.

(Here follow side folio pages 360, 361, 362, 363, 364, and 365; side folio pages 366 to 609, inclusive, omitted in printing.)

[fol. 610] IN UNITED STATES DISTRICT COURT

DEFENDANT'S EXHIBIT R

Department of the Interior,
United States Patent Office.

To all persons to whom these presents shall come, Greeting:

This is to certify that the annexed is a true copy from the records of this office of the File Wrapper and contents, in the matter of the Letters Patent of Harlon A Clifford, Number 1,016,613, Granted February 6, 1912, for Improvement in Torches.

In testimony whereof I have hereunto set my hand and caused the seal of the Patent Office to be affixed, at the City of Washington, this seventeenth day of November, in the year of our Lord, one thousand nine hundred and twenty-three and of the Independence of the United States of America the one hundred and forty-eighth.

Wm. A. Kinnan, Acting Commissioner of Patents. (Seal.)

[fol. 611] 2—437

Div. [3]* 30
Number (Series of 1900)
605,741

Div. 30.
(Ex'r's Book)
[110/14-F* 34/8]*

—— —, 1911

Patent No. 1,016,613.
Name: Harlon A. Clifford,
of Jersey City,
County of ——,
State of New Jersey.
Invention: Torch.

Parts of Application Filed	Original	Renewed
	Petition January 31, 1911.	—— —, 191-.
	Affidavit, " ", 1911.	—— —, 191-.
	Specification, " ", 1911	—— —, 191-.
	Drawing, " ", 1911.	—— —, 191-.
	Model or specimen, —— —, 191-.	—— —, 191-.
	1. First Fee, Cash, $15, Jan. 31, 191-.	—— —, 191-.
	"Appl. filed complete Jan. 31, 191-.	—— —, 191-.
	First Fee, Cert., —— —, 191-.	—— —, 191-.

Examined: M. R. Sullivan, Ex., Dec. 8, 1911. —— —, [191-]*
Allowed: H. B. Burch, —, [191-]*
For Commissioner For Commissioner.
Notice of Allowance, Dec. 12, 1911. —— —, 191-.
Final Fee, Cash, $20, Jan. 10, 1912 —— —, 191-.
" " Cert., —, —— —, 191-. —— —, 191-.
Patented February 6, 1912.
2. Attorney-: C. A. Snow & Co. City.
Associate Attorney: —— ——.
3. No. of Claims Allowed: 7. Title as Allowed: Torch. (158-109.)
Division of App., No. —, filed —— —, 191-.

[*Words and figures enclosed in brackets erased in copy.]

[fol. 612] U. S. Patent Office,
Feb. 2, 1911,
Div. 3.

Paper No. —,
Mar. 4, 1911,
Division XXX.

Printed Letterhead Omitted

$15 Received Jan. 31, 1911. D. Chief Clerk, U. S. Patent Office

Serial No. 605,741, Paper No. 1, Application

Application for Letters Patent

I. Petition and Power of Attorney

To the Commissioner of Patents.

SIR: Your Petitioner, Harlon A. Clifford a citizen of the United States, residing at Jersey City in the County of Hudson and State of New Jersey and whose P. O. address is 143 Van Reipan Ave., Jersey City, N. J. prays that Letters Patent may be granted to him for the Torch set forth in the annexed Specification.

And he hereby appoints C. A. Snow & Co. (C. A. Snow and C. E. Doyle, members) as his attorneys, with full power of substitution and revocation, to prosecute this application, to make alterations and amendments therein, to receive the patent, and transact all business in the Patent Office connected therewith.

Registration No. 340.

Harlon A. Clifford.

II. Specification

To all whom it may concern:

Be it known that I, Harlon A. Clifford, a citizen of the United States, residing at Jersey City in the County of Hudson and State of New Jersey have invented a new and useful Torch of which the following is a specification:

[fol. 613] Sub. C^1.

It is the object of this invention to provide a device for cutting and welding by means of a gas and ozygen flame, the device being so constructed that the cutting and welding elements may be swung about to assume any desired angles with respect to the handle portion of the structure. Another object of the invention is to provide a device of this character, which may be employed for cutting or for welding, alternately, at will. Another object of the invention is to provide novel means for conducting the fluids through the tool, irrespective of the positions of the parts. A further object of the invention is to provide novel means for assembling constituent elements

of the device, and to provide means whereby a flashback will be prevented.

With the foregoing and other objects in view which will appear as the description proceeds, the invention resides in the combination and arrangement of parts and in the details of construction hereinafter [fol. 614] described and claimed, it being understood that changes in the precise embodiment of invention herein disclosed can be made within the scope of what is claimed without departing from the spirit of the invention.

In the drawings,—

[Insert A^1, B^1.]* [Figure 1 is a sectional elevation of the $\overset{\wedge}{B^1}$ torch, $\overset{\wedge}{A^1}$ the tip-carrying end of the structure being sectioned along the line K-L of figure 2;

Figure 2 is a fragmental top plan;]*

Figure 3 is a transverse section through the handle portion of the structure, on the line A-B of figure 1;

Figures 4 and 5 are transverse sections upon the line of Fig. 1

Per A. C-D $\overset{\wedge}{A^2}$, looking in opposite directions in the two

[Insert A^2.]* views;

Figure 6 is a transverse section on the line E-F of figure 1;

Figure 7 is a transverse section on the line G-H of figure 1;

Figure 8 is a detail perspective of the plug which is inserted into the structure at the base of the welding tip; and

Figure 9 is a transverse section showing a modified form of nozzle. [fol. 615] In carrying out the invention there is provided a tubular handle 1, equipped at its base with a head 2, carrying valves 3, 4 and 5, of any desired form, the valves being conventionally indicated. The valve 3 controls a gas supply pipe 6, the valve 4 controls an oxygen supply pipe 7, and the valve 5 controls another oxygen supply pipe 8, these pipes 6, 7 and 8, entering the head portion 2 of the handle 1.

Located within the handle 1, is a tube 9 with which

Insert A^3. the pipe 6 communicates, the tube 9 being $\overset{\wedge}{A^3}$ [supplied with facings 10, preferably of wire gauze],* the interior of the tube 9 being filled with a packing 11, preferably

Per A. [fashioned from]* asbestos. As denoted by the numeral 12, the pipe 8 is extended through the tubular handle 1, the pipe 7 being extended through the handle in a like manner, as indicated at 14, and as seen most clearly in figure 3. As shown at 15, the portions of the oxygen supply pipes 7 and 8 which are located within the tubular handle 1, may be packed with asbestos

Per A. or the like, [as shown at 16,]* the packings 11 and 15 serving to prevent a flashback of the ignited gases.

[*Words and figures enclosed in brackets erased in copy.]

The handle 1 is equipped with a closure cap 16, through which the pipes 7 and 8 protrude, a pipe 17 being united with closure cap 16, by means of a suitable connection 18, to afford communication with the interior of the tube 9, the tube 9 and the pipe 17 forming continuations of the gas supply pipe 16.

Insert B^3. The pipes 17, 7 and 8, enter a head 19. $\wedge_{B^3}$ In the [fol. 616] inner face of this head 19 there is a groove 20, circular in outline, and communicating by means of a duct 21, with the pipe 17. In the face of the head 19 there is another annular groove 22, communicating by means of a duct 23 with one of the oxygen supply pipes 7. There is a third annular groove 24 in the said face of the head 19, the groove 24 communicating by way of a duct 25 with the other oxygen supply pipe 8.

Per A. The several annular grooves 20, 22 and 24 [mate]* $\wedge_{\text{register}}$ with similar grooves in one face of the body 26 of the " " nozzle portion of the device, [the body 26 of the nozzle and the head 19 being preferably, although not necessarily, halved into each other, as shown in figure 2.]* The head 19 and the body 26 are held or relative rotation, by means of a pivot element 27, so that the nozzle portion of the structure may be swung about at any angle, with respect to the handle 1, the communicating, annular grooves in the adjacent faces of the head 19 and the body 26, permitting a free passage of the gases from the handle into the nozzle, no matter what relative angles the handle and the nozzle may assume with respect to each other.

Per A. In the [head]* $\wedge_{\text{body}}$ 26 of the nozzle, there is a longitudinally extended passage 28, communicating at one end with the groove 24, and at the other end communicating with an annular groove 29, formed in the outer end face of the body 26. There is another longitudinal passage 30 in the body 26, this passage 30 communicating at one end with the annular groove 20, and at the other end opening through the outer end face of the body 26. [fol. 617] In the body 26 there is a third passage 31, communicating at one end with the groove 22, and at the other end communicating with an annular groove 32 in the outer end face of the body 26, the passages through the device being continuous, irrespective of the angular relations between the nozzle portion of the device and the handle.

It is to be understood that the annular grooves 29 and 32 in the

Per A. outer end face of the body 26, may be packed $\wedge_{\text{as at 100}}$ with asbestos and metallic gauze, and by reason of this construction, together with the fact that the packings 11 and 15 are interposed within the handle 1, a flash-back of the ignited material will be prevented.

[*Words and figures enclosed in brackets erased in copy.]

The invention further includes a cap 34, applied to the outer end face of the body 26, and held in place thereon by a collar 36, engaging the cap 34, the collar being preferably threaded upon the body 26. In the inner end face of the cap 34 there is an annular groove

registering

Per A. 33, ∧ [mating]* with the annular groove 29 in the outer

nozzle structure includes a

" " end face of the body 26. The ∧ cap 34 [is]* preferably

proper

" " formed integrally with a nozzle ∧ 35, longitudinally recessed to receive a tube 38, carrying a removable cutting tip 39, the tube 38 being removably inserted into cap 34, there being in the cap 34, a passage 37, forming a communication between the

registering

Per A. bore of the tube 38 and the ∧ [mating]* annular grooves 29 and 33.

The cap 34 is recessed to receive a removable

plug

" " [thimble]* 40, having a central passage 41, communicat-

[fol. 618] ing with the passage 30, and with the bore 42 of the nozzle

plug

Per A. 35. In the side walls of the [thimble]* 40, there are, as shown in figure 8, inclined grooves 44, communicating at one end with the annular groove 32 in the outer end face of the

inwardly

body 26, the grooves 44 being extended ∧ across the end face of the

plug

Per A. [thimble]* 40, [tangentially],* as denoted by the

plug

" " numeral 45. In advance of the [thimble]* 40, the cap 34 is recessed, to form a mixing chamber, as shown at 43

Presupposing that all of the controlling valves 3, 4 and 5 are open, the gas which is to be burned, will enter the pipe 6, pass into and through the tube 9, the gas traversing the pipe 17 and passing by

registering

Per A. way of the duct 21 into the [mating]* annular grooves 20 in the adjacent faces of the head 19 and the body 26. From these grooves 20, the gas will pass by way of the passage 30 in the body 26, and by way of the central pas-

spot

Per A. sage 41 in the [thimble]* 40, into the mixing chamber 43, and then through the bore 42 of the nozzle 35.

The oxygen entering the pipe 7, will pass through the

registering

Per A. handle 1, and by way of the duct 23 into the [mating]* annular grooves 22 in the adjacent faces of the head 19

registering

" " and the body 26. From these [mating]* grooves 22, the oxygen will pass by way of the passage 31 into the annular groove 32, and thence by way of the inclined grooves

[*Words and figures enclosed in brackets erased in copy.]

plug
Per A. 44 in the outer face of the [thimble]* 40, into the mixing chamber 43, and thence with the gas which is simultaneously delivered into the mixing chamber 43, through the bore 42 of the nozzle 35.

The oxygen entering the pipe 8, will pass through the handle 1, the oxygen passing from the pipe 8, by means of the duct 25, into registering
Per A. the [mating]* annular grooves 24 in the adjacent faces registering
" " of the head 19 and the body 26. From these [mating]* grooves 24, the oxygen will enter, by way of the passage registering
" " 28, into the [mating]* annular grooves 29 and 33 in the abutting faces of the body 26 and the cap 34. From registering
" " these [mating]* grooves 29 and 33, the oxygen will traverse the passage 37, and enter the bore of the tube 38, the [fol. 619] oxygen ultimately traversing the bore of the cutting tip 39.

When the device is to be used for welding purposes, the tube 38 and the tip 39 may be removed from the cap 34, the valve 5 being closed. When, however, the element 39 is to be employed for cutting purposes, the parts will be disposed in the positions shown in figure 1.

Obviously, the tube 38, the tip 39, and the nozzle 35 constitute what, for convenience, may be denominated the burner portion of the device. By reason of the fact that, as clearly shown in figure 7, the nozzle 35 is longitudinally grooved as shown at 47, to receive the tube 38, the constituent elements of the burner part of the structure, are held in proper positions against relative movement.

Owing to the inclination given to the grooves 44 in the plug
Per A. [thimble]* 40, and owing to the fact that these grooves inwardly
" " are extended [tangentially]* across the end face of the thimble 40, as shown at 45, a thorough admixture of the oxygen and the gas which is employed for combustion purposes, will take place in the mixing chamber 43 which plug
Per A. is located in advance of the [thimble]* 40, the oxygen traversing the grooves 44, being given a spiral mo-
[Insert B^2.]* tion, as it enters the mixing chamber 43. [The modified form of the invention shown in figure 9 may be dismissed with the brief explanation that when desired, there may be any number of supplemental passages 46 in the nozzle 35′, these passages 46 being disposed about the bore 42′ of the
[Insert A^4.]* nozzle.]^*
[A^4]*

[Matter enclosed between rules erased in copy.]

[*Words and figures enclosed in brackets erased in copy.]

Having thus described the invention, what is claimed is:

1. In a device of the class described, a head and a registering
Per A. body having [mating]* annular grooves in their faces; means for binding the head and the body together for relative angular movement, and for holding said faces in maintain in registration
Per A. intimate contact to ∧ [aline]* the grooves ∧ ; a burner carried by
" " ∧ [in]* the body, having separate communications with the grooves; a handle carried by the head; and pipes in the handle, each communicating with a groove.

[Matter enclosed between rules erased in copy.]

Canceled Per B

2. In a device of the class described, a tubular han-
[Insert A[5].]* dle; a tube therein; a packing in the tube; a pipe ∧ A[5] [into which the tube is interposed;]* other pipes extended through the handle on one side of the adjacent end
Per A. tube; valves in the pipes ∧ [upon]* one [side]* adjacent
" " of the handle; a head receiving the pipes ∧ end [upon]* the other [side]* of the handle; a nozzle
[Insert A[6]]* connected with the head; ∧ A[6] a tip removably last named tube
Per A. mounted in the ∧ [nozzle]* along side of the nozzle;
" " there being passages in the head [forming communica- connecting the bore of the nozzle with with
" " tion between]* ∧ one of the last named pipes and ∧ the
" " first named pipe [upon the one hand, and the bore of the
" " nozzle upon the other hand];* there being another passage in the head forming a communication between the last named tube
" " other of said last named pipes and the bore of the ∧ [tip].*

[Matter enclosed between rules erased in copy.]
[*Words and figures enclosed in brackets erased in copy.]

2ᵇ [3].* In a device of the class described, a structure
Per A. body; a nozzle ∧ ; means for removably securing structure
" " the nozzle ∧ to the body; a tip; ∧ [removably se-
[Insert A⁷.]* [fol. 621] A⁷
cured to the nozzle;]* a handle with which the body is pivotally connected; and means for conveying a
Per A. structure
Per B. fluid to the nozzle ∧ and to the tip [independently],* through the handle, irrespective of the relative positions between the body and the handle.

3ᵇ [4].* In a device of the class described, a body; a nozzle removably secured thereto; a tube removably mounted upon the nozzle and provided with a removable tip; a handle with which the body is pivotally connected; separate fluid conduits leading through the handle and communicating with the bore of the nozzle; an independent conduit leading through the handle
[Insert B⁴.]* and communicating with the bore of the tube, ∧ B⁴
will have
Per B. the conduits [having]* communication with the nozzle and the tube, irrespective of the relative positions of the body and the handle.

4ᵇ [5].* In a device of the class described, a body; a structure
Per B. nozzle ∧ terminally abutting thereagaints; a collar threaded upon the body and adapted to engage the noz- structure structure
" " zle ∧ ; a tube removably connected with the nozzle ∧ ; a for
" " removable tip [in]* the tube; and means for supplying structure
" " fluid to the nozzle ∧ and to the tube.

5ᵇ [6].* In a device of the class described, a nozzle having a laterally extended cap; a tube removably seated in the cap, the nozzle [fol. 622] being longitudinally grooved to receive the tube; a tip removably seated in the end of the tube; a body; means for binding the cap upon the body; and independent passages in the body, communicating with the bore of the tube and with the bore of the nozzle.

6ᵇ [7].* In a device of the class described, a nozzle provided with and
Per B. a bore, enlarged at one end to form a mixing chamber; ∧

[*Words and figures enclosed in brackets erased in copy.]

Per A. a [thimble]* ∧ plug removably seated in the chamber and pro-
" " vided with diagonal grooves in its [outer]* side face, com-
" " municating with the mixing chamber, the [thimble]* plug having a central opening, likewise communicating with the mixing chamber.

7[b] [8].* In a device of the class described, a nozzle provided with a bore terminally enlarged to form a mixing chamber; and

Per A. Per B. ∧ a [thimble]* ∧ plug removably seated in the mixing chamber and having diagonally disposed grooves in its
" " " " side [outer]* face, extended [tangentially]* [inwardly]* upon
" " the end face of the [thimble],* plug within the mixing cham-
" " ber, there being an opening in the interior of the [thimble],* plug likewise communicating with the mixing chamber.

8[b] [9].* In a device of the class described, a body and a burner disposed in terminal abutment, there being concentric annular grooves in the meeting faces of the body and the burner; a packing disposed in said grooves; means for supplying fluid to the grooves upon one side of the packing; and means for establishing a communication between the bore of the burner and the grooves, upon the other side of the packing therein.

[Insert A[8].] >

[Matter enclosed between rules erased in copy.]

[fol. 623] In testimony that I claim the foregoing as my own, I have hereto affixed my signature in the presence of two witnesses.

Harlon A. Clifford.

Two witnesses: Delavan Provost, Leo C. Clifford.

III. Oath

STATE OF NEW JERSEY,
County of Hudson, ss:

I, Harlon A. Clifford the above-named petitioner, being duly sworn, depose and say that I am a citizen of the United States, and resident of Jersey City County of Hudson and State of New Jersey and that I verily believe myself to be the original, first and sole inventor of the Torch described and claimed in the annexed specification; that I do not know and do not believe that the same was ever

---

[*Words and figures enclosed in brackets erased in copy.]

64-1-M

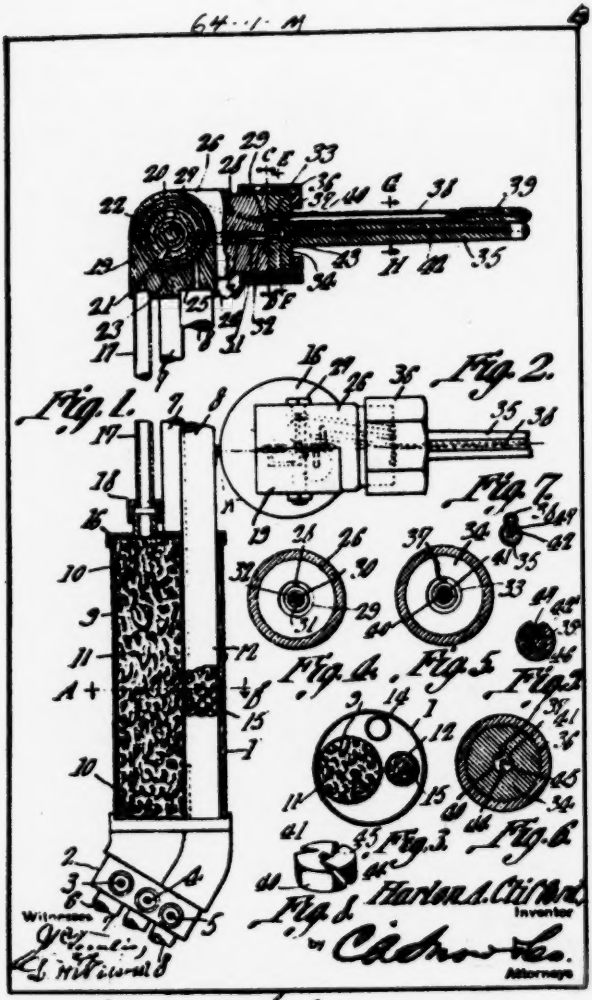


Fig. 1.

Fig. 2.

Fig. 7.

Fig. 4.

Fig. 5.

Fig. 3.

Fig. 6.

Fig. 8.

Witnesses

Harlan A. Clifford
Inventor

by Cachow & Co.
Attorneys

605.744 1

'07

known or used before my invention or discovery thereof; or patented or described in any printed publication in the United States of America or any country foreign thereto before my invention or discovery thereof or more than two years prior to this application or patented in any country foreign to the United States, on an application filed more than twelve months before this application; or in public use or on sale in the United States for more than two years prior to this application; and that no application for patent has been filed by me or my legal representatives or assigns in any country foreign to the United States.

Harlon A. Clifford.

Sworn to and subscribed before me this 28″ day of January, 1911. Leon Ervin, Notary Public, New Jersey. (Seal.)

(Here follows drawing marked side folio page 624.)

[fol. 625] Patent Office,
Mar. 8, 1911,
Mailed.

2—260

Div. 30, Room 152

Address only "The Commissioner of Patents, Washington, D. C.," and not any official by name.

Paper No. 2

All communications respecting this application should give the serial number, date of filing, title of invention, and name of the applicant.

A. M. F.

Department of the Interior,
United States Patent Office,
Washington, March 8, 1911.

H. A. Clifford,
C/o C. A. Snow & Co.,
Washington, D. C.:

Please find below a communication from the Examiner in charge of your application, Serial No. 605,741, Torch, filed Jan. 31, 1911.

E. B. Moore, Commissioner of Patents.

One figure of the drawing is not numbered or described.

Page 3, lines 11 and 12, the line A—B is not shown on Fig. 1 of the drawing as here described. Line 14, the figure on which line C—D appears should be given and the direction in which each of Figs. 4 and 5 is taken should be given. Page 4, line 11, "facings"

and, line 13, "fashioned" are used where their meanings are vague. Line 20, "as shown at 16" should be canceled.

Throughout the specification "mate" should be —register—.

Page 5, line 13, "halved into each other" is vague. Line 23, "head" should be —body—. Where passage 28 communicates with groove 24, passage 30 communicates with groove 20, and passage 31 communicates with groove 22 should appear on the drawing.

Throughout the specification "thimble" should be —plug—.

Page 7, line 6, and page 9, line 18, "tangentially" is inaccurate.

Page 9, last five lines, the modified form of the device should be fully described. The function of "passages 46" should be stated.

Claims 1, 2, 4, 7 and 8 are objectionable. In claim 1, line 2, "mating" is vague. Line 5, "aline" is vague. Line 6, "in the body" is inaccurate.

[fol. 626] In claim 2, line 3, "interposed" is vague. Line 5, "upon one side" should be —at one end—. Line 6, "side" should be —end— .

In claim 4, matter in line 9 duplicates matter in line 6.

In claims 7 and 8, "thimble" should be —plug—.

Claims 2, 3, 5, 8 and 9 are rejected as being for a device not disclosed. Claim 2, "a tip * * * mounted in the nozzle and alongside of the nozzle" is not disclosed. There are no passages disclosed "forming communications between one of the last named pipes and the first named pipe." Claim 3, "a tip removably secured to the nozzle" is not disclosed. Claim 5, "a tube removably connected with the nozzle" is not disclosed. Claim 8, "grooves * * * extended tangentially" are not disclosed. Claim 9, "a packing disposed in said grooves" is not shown.

The subject matter of claims 1, 4 and 7 appears allowable.

Claim 6 is allowed.

M. R. Sullivan, Examiner. C. J. S.

[fol. 627] Application Room,
Jun. 12, 1911,
U. S. Patent Office.

A. Paper No. 3

Jun. 13, 1911, Division XXX, Room 152

Paper No. 3

ML/W.

H. A. Clifford. Torch. Filed January 31, 1911. Serial No. 605,741

To the Commissioner of Patents.

SIR: Office action of March 8, 1911 noted.

Page 3 line 6 after the comma insert

A^1. —the connecting pipes being broken away and—

Line 14 after "C–D" insert —of Figure 6—.
Line 15 after the semicolon insert

A². —to the left in Figure 4 and to the right in Figure 5.—

Page 4 line 11 strike out "supplied * * * gauze," and insert

A³. —lined, as at 10, with wire gauze,—

Line 13 strike out "fashioned from".
Line 20 strike out "as shown at 16,".
Page 5 line 10 change "mate" to —register—. Line 11 cancel ", the body" through "figure 2." line 14. Line 23 change "head" to —body—.
Page 6 line 10 after "packed" insert —as at 100—. Line 20 change "mating" to —*registering*—. Line 21 before "cap" insert —*nozzle structure includes a*—. Same line cancel "is". Line 22 after "nozzle" insert —*proper*—. Line 27 change "mating" to —registering—. Line 30 change "thimble" to —plug—. Page 7 [fol. 628] line 1 change "thimble" to —plug—. Line 5 before "across" insert —*inwardly*—. Same line change "thimble" to —*plug*—. Line 6 cancel "tangentially". Line 7 change "thimble" to —*plug*—.
Page 8 lines 5, 13, 15, 24, 26, 27, and 29 change "mating" to —*registering*—. Lines 9, 18, change "thimble" to —*plug*—.
Page 9 lines 17 and 22 change "thimble" to —*plug*—. Line 18 change "tangentially" to —*inwardly*—. Line 29 change the period to a comma and insert

A⁴. —the passages 46 being for the same purpose as the bore 42'.

Claim 1 line 2 change "mating" to —*registering*—. Line 5 change "aline" to —*maintain*—. Same line after "grooves" insert —*in registration*—. Line 6 change "in" to —*carried by*—.
Claim 2 line 3 change "into which the tube is interposed" to

A⁵. —communicating with both ends of the tube—.

Line 5 change "upon one side" to —*adjacent one end*—. Line 6 cancel "upon the other side" and insert —*adjacent the other end*—.
Line 7 after the semicolon insert

A⁶. —a tube connected with the head;—.

Line 8 cancel "nozzle" and insert —*last named tube*—. Line 9 cancel "forming communications" and insert —*connecting the bore of*—. Line 10 cancel "between" and insert —*the nozzle with*—. Same line after "and" insert —*with*—. Line 11 cancel "upon * * * hand" line 12. Line 14 change "tip" to —*last named tube*—.

[fol. 629] Claim 3 line 2 after "nozzle" insert —*structure*—. Same line before "to" insert —*structure*—. Line 3 place a semicolon after "tip". Same line cancel "removably * * * nozzle" and insert—

A⁷. means for removably securing the tip to the nozzle structure;

Line 5 after "nozzle" insert —*structure*—.
Claim 7 lines 3 and 6 change "thimble" to —*plug*—.

Claim 8 lines 3, $\begin{bmatrix}6\\5\end{bmatrix}$ and 7 change "thimble" to —*plug*—. Line 5 change "tangentially" to —*inwardly*—.

Remarks

The Examiner's statement that one of the Figures of the drawings is not numbered or described, is thought to be inadverently erroneous. Figure 1 is broken, and the specification has been amended to bring out these facts.

In view of the foregoing statements, it is thought that the line A-B is properly described as appearing on Figure 1 of the drawings.

Permission is requested to amend Figure 1, as indicated in the appended sketch, with a view to showing the passages through the device. Permission is also requested to amend Figure 4, to show the packing 100, mentioned in claim 9.

With regard to claim 4, the matter in line 9 is not considered a duplicate of the matter in line 6. The matter in line 6 claims certain elements positively, and the matter in line 9 is merely an explanatory, functional statement.

Claims 2, 3, 5, 8 and 9 have been amended, and those portions of [fol. 630] the specification in which the subject matter of these claims is mentioned, have likewise been amended, so that, as the applicant understands the record, there is nothing in claims 2, 3, 5, 8 and 9, which is not now disclosed in the specification.

Add the following claim—

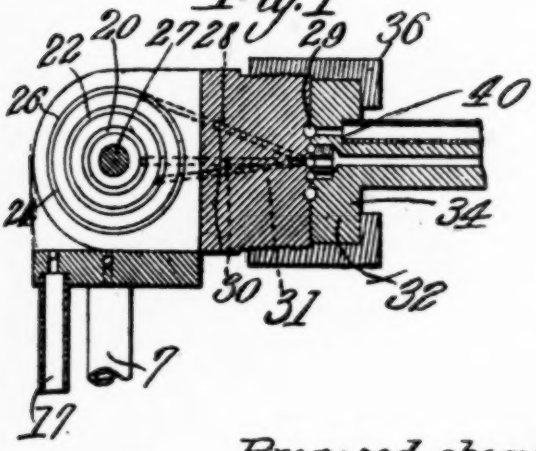
Per C

A⁸. 10. In a device of the class described a head and a body having registering annular grooves in their faces; means for binding the head and the body together for relative angular movement and for holding said faces in intimate contact, to maintain the grooves in registration; a burner carried by the body, having separate communication with the grooves; and means in the head for supplying fluid to the grooves.

[Matter enclosed between rules erased in copy.]

630A

Fig. 1



24

Proposed change in Fig. 1

Claim 10, as above submitted, is intended to embody the subject matter of claim 1, without the specific limitation imposed in claim 1, by the enumeration of a handle and pipes.

The applicant has made an effort to comply with all of the Examiner's suggestions, and it is thought that no formal matters now stand in the way of an early and favorable action.

All of which is respectfully submitted,

C. A. Snow & Co.

(Here follows drawing marked side folio page 630a)

[fol. 631] 2—260

Div. 30, Room 152

Address only "The Commissioner of Patents, Washington, D. C.," and not any official by name.

R. M. F.

Paper No. 4

All communications respecting this application should give the serial number, date of filing, title of invention, and name of the applicant.

Department of the Interior,
United States Patent Office,
Washington, June 22, 1911.

Patent Office.
Jun. 22, 1911
Mailed.

Harlon A. Clifford,
c/o C. A. Snow & Co.,
Washington, D. C.

Please find below a communication from the Examiner in charge of your application Serial No. 605,741, Torch, filed Jan. 31, 1911.

E. B. Moore, Commissioner of patents.

In response to amendment filed June 12, 1911.

The line K—L does not appear on Fig. 2.

The short description of Fig. 2 should state of what this figure is a plan.

The two parts of Fig. 1 are separate figures and should be so numbered and described. The upper part of this figure appears in error in that body 26 is not completely sectioned.

Page 4, line 11 as amended, the description of tube 9 as "lined with wire gauze" is new matter and must be canceled. The drawing shows wire gauze 10 at the ends of tube 9.

Page 5, line 24, to page 6, line 2, the drawing fails to show passage 28 communicating with groove 24, passage 30 communicating with groove 20, or passage 31 communicating with groove 22. The drawing shows only dotted lines and these end at points obscured in the drawing. A definite port should be shown in the grooves communicating with the passages.

Page 6, line 10 as amended, reference character 100 is not found of the drawing.

Page 9, last five lines as amended, the modified form of the device should be fully described. The object in making this modified form [fol. 632] should be given, the function stated and the purpose of the passage 46 should be stated definitely and independently of other parts of the device.

Applicant's remarks as to the showing of Fig. 1 are noted but are judged insufficient to avoid numbering separate figures by separate numbers as required by the Rules of Practice. The sketch submitted for amendment of Fig. 1 fails to show any definite section of the device, therefore it can not be approved.

Permission to show packing in grooves 29 and 32 of Fig. 4 as per sketch submitted is granted.

Claim 1 is rejected as applicant fails to disclose a "burner." The nomenclature of the claims must agree with the specification. Apparently the word "burner" is used to designate what is termed a "nozzle" in the specification, but as applicant fails to describe any part of his device as a "burner" the claim is rejected.

Claim 2 as amended is rejected as applicant fails to disclose "a pipe communicating with both ends of the tube."

Claim 2 is also rejected as being an aggregation of independent elements. There is no coaction between a specific form of handle and a specific form of nozzle for a blow pipe. Moreover, the construction of the handle is known and is shown, for example, in patent to Johnson, 969,875, Sept. 13, 1910, 158-109.

Claim 2 is objectionable in reciting a "handle" inferentially and not positively.

Claim 3 is rejected as applicant fails to disclose "a handle upon which the body is pivotally connected." Nor does he disclose "means for conveying a fluid to the nozzle structure and to the tip independently."

[fol. 633] Claim 4 is, upon reconsideration, rejected as applicant fails to disclose "a handle with which the body is pivotally connected." Applicant's remarks as to lines 6 and 9 of claim 4 are noted.

Claim 4 is also rejected as incomplete since the annular grooves in the faces of the body and head are a necessary part of the connection between the conduits, bore and tube.

Claim 5 stands rejected as being for a device not disclosed as applicant fails to disclose "a tube removably connected with the nozzle."

Claim 6 stands allowed.

Claims 7 and 8 are objectionable. In line 3 of each claim

—and—should be inserted after the semicolon. Line 5 of each claim, "outer" is indefinite. Claim 8, line 5, "inwardly" is indefinite.

Claims 9 and 10 are rejected as applicant fails to disclose a "burner."

M. R. Sullivan, Examiner. C. J. S.

[fol. 634] Application Room
Sep. 11, 1911,
U. S. Patent Office.

B. Paper No. 5

Sep. 12, 1911, Division XXX, Room 152

Paper No. 5

ML/BAS.

Harlon A. Clifford. Torch. Filed Jan. 31, 1911. Serial No. 605,741

The Commissioner of Patents.

SIR: Office action of June 22, 1911 at hand and contents noted.

The line K-L has been applied to Figure 2.

Strike out lines 6 to 8, both inclusive, on page 3, and insert in lieu thereof the following:

B[1]. "Figure 1 is a section of the burner end of the torch, upon the line K-L of figure 2, parts appearing in elevation;

Figure 1[a] is a sectional elevation of the handle end of the torch, figures 1 and 1[a] being complemental, and showing the burner and handle portions of the torch in operative relation to each other;

Figure 2 is a top plan of that portion of the torch which appears in figure 1, parts, however, being broken away."

[Matter enclosed between rules erased in copy.]

It is thought that the Examiner's objection to the matter amended into line 11 of page 4, should be withdrawn. The tube 9 is "lined" with wire gauze. If the Examiner will note the drawing, he will observe that the reference character 10 is applied to both the ends and [fol. 635] the side of the tube 9. Morever, the wire gauze is clearly indicated in figure 1 (now figure 1[a]) as extending along the sides of the tube.

The Examiner will cancel the sketch submitted for amendment of figure 1.

Permission is requested to amend figure 1 as shown in the appended sketch. This sketch represents the section taken strictly on

the line K-L of figure 2. This section is in accordance with the Examiner's suggestion, as evidenced in an interview had on or about the 19th day of August 1911.

Reference character 100 has been placed upon the drawing.

Strike out the last five lines of page 9, together with all amendments relating thereto, and insert in lieu thereof the following:

B². In the modified form appearing in figure 9, the nozzle 35′ exercises the same functions as the nozzle 35 in figure 1. The nozzle 35′ is equipped with an axial bore 42′, corresponding to the bore 42 of the nozzle 35 in figure 1. About the bore 42′ there are a series of supplemental bores 46. All of the bores 46 and 42′ are for a single purpose, to-wit, to serve as conduits for mixed oxygen and gas, this mixture of oxygen and gas passing, in figure 1, through the bore 42 alone.

[Matter enclosed between rules erased in copy.]

With regard to the use of the word "burner" in claim 1, the attention of the Examiner is respectfully directed to the sentence beginning in line 8 of page 9.

[fol. 636] Cancel claim 2.

Insert the following as a new sentence after "19" in the next to to the last line on page 4.

B³. "The member 1, the pipes 17, 7 and 8, and the head 19, are all rigidly connected. Therefore, these elements may be referred to under the general name of a "handle", although the element 1 is primarily adapted for that purpose."

[Matter enclosed between rules erased in copy.]

The foregoing insertion will probably remove the Examiner's contention that the applicant fails to disclose a handle upon which the body is pivotally mounted.

In the third line from the end of claim 3, strike out "independently".

If the above amendment to claim 3 does not remove the Examiner's objection to the claiming of means for conveying a fluid etc., a more detailed criticism of claim 3 will be helpful.

With regard to claim 4, it is thought that the handle portion of the structure is now defined with sufficient clearness in the descriptive portion of the specification.

Claim 4, line 4, from the end after "tube," insert

B⁴. "the body and the handle having mating curved grooves whereby".

[Matter enclosed between rules erased in copy.]

Fig. 1

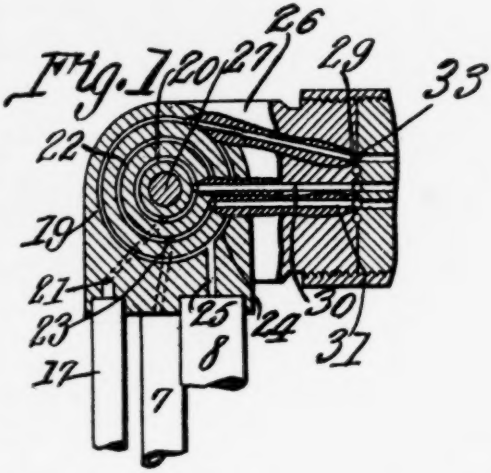
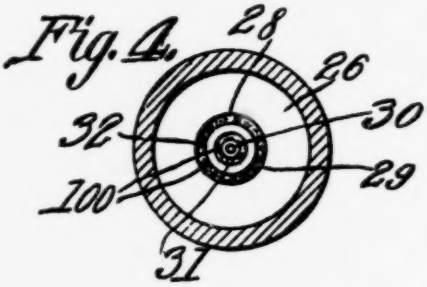


Fig. 4.



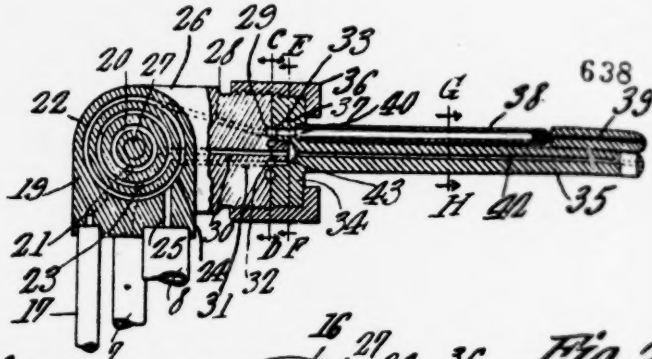


Fig. 1.

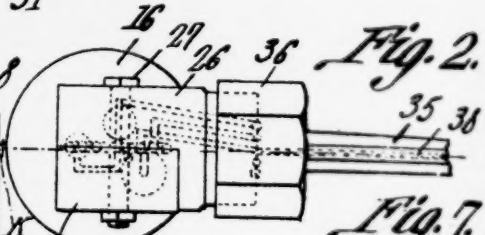


Fig. 2.



Fig. 7.



Fig. 4.



Fig. 5.



Fig. 2.



Fig. 3.



Fig. 6.



Fig. 8.

Witnesses

J. Crowell

S. H. Wilcox

Harlon A. Clifford,
Inventor

by C. A. Snow & Co.
Attorneys

Claim 4, line 3 from the end strike out "having" and insert *"will have"*.

Claim 5, line 2; claim 5, line 4, (both occurrences) claim 5, last line, after the word "nozzle" insert *"structure"*.

[fol. 637] Claim 5, next to the last line, strike out "in" and insert *"for."*

Claim 5, as above amended, appears to follow the phraseology of page 6, lines 21 and 22, as amended heretofore.

Claims 7 and 8, in line 3 of each claim, *"and"* should be inserted after the semi-colon.

In line 5, of claims 7 and 8, strike out "outer" and insert *"side"*.

Claim 8, line 5, strike out "inwardly".

With regard to the rejection of claims 9 and 10, attention is again directed respectfully to the sentence beginning in line 8 of page 9.

An early and favorable action is solicited.

Respectfully, C. A. Snow & Co.

(Here follow drawings marked side folio pages 637a and 638.)

[fol. 639] Application Room,
Oct. 4, 1911,
U. S. Patent Office.

Oct. 5, 1911,
Division XXX.

C.

Paper No. 6

Room 152

ML/BAS.

Harlon A. Clifford. Torch. Filed Jan. 31, 1911. Serial No. 605,741.

The Commissioner of Patents.

SIR: This case, upon the 20th day of Sept. 1911 was discussed with the Assistant in charge, and with the Principal Examiner. It was pointed out to the applicant's representative that, although there was at that time no serious objection to the subject-matter of the claims, the claims, nevertheless, were subject to adverse criticism because the terms used therein were in some instances, questionably supported by the description, the description in its turn, being somewhat involved in its phraseology.

At the suggestion of the Principal Examiner, the applicant desires to cancel pages 2 to 9, both inclusive, of the specification, the clause introductory to the claims, all of the claims, and all amendments to the specification and the claims, and to substitute in lieu thereof the new specification below.

Leave is asked to show a packing 15 in the part 14 of the pipe 7 in Figure 3, as per appended sketch. See line 17 and following of page 4 of the original specification.

[fol. 640] For the Examiner's convenience, a comparative table of the claims is given.

New specification.	Original specification.	Amendment A.
1	1	..
2	3	..
3	4	..
4	5	..
5	6	..
6	7	..
7	8	..
8	9	..
9	..	10
10 (New)	..	..
11 (New)	..	..

Substitute Specification and Claims

C[1]. The device forming the subject matter of this application is a torch adapted to be employed for applying a mixture of oxygen and gaseous fuel to a material, for the purpose of welding and for cutting the same.

The invention aims to provide a torch of this character in which the angle between the burner and the handle may be changed without interfering with the flow of fluid through the handle and to the burner. A further object of the in- [fol. 641] vention is to provide novel means for securing a thorough mixture of gaseous fuel and oxygen in the mixing chamber of the burner. The invention is designed, moreover, to provide a torch having separable cutting and welding elements, each provided with an individual fluid supply. Another object of the invention is to provide means for preventing a flash-back of the ignited fluids. Novel means are supplied for assembling the various elements of the torch in operative relation to one another.

With the foregoing and other objects in view which will appear as the description proceeds, the invention resides in the combination and arrangement of parts and in the details of construction hereinafter described and claimed, it being understood that changes in the precise embodiment of invention herein disclosed can be made within the scope of what is claimed without departing from the spirit of the invention.

In the accompanying drawings,—

Figure 1 is a section of the burner, the burner-support and a portion of the handle, upon the line K-L of Figure 2, parts appearing in elevation;

Figure 1[a] is a sectional elevation of a portion of the handle, figures 1 and 1[a] being complemental and showing the handle and the burner of the torch rectangularly disposed;

Figure 2 is a top plan showing a portion of the burner, the burner-support, and that portion of the handle to which the burner-support is immediately pivoted;

[fol. 642] Figure 3 is a transverse section through the casing portion of the handle, upon the line A-B of Figure 1*;

Figures 4 and 5 are sections upon the line C-D of Figure 1, looking to the left in Figure 4 and to the right in Fige 5;

Per D. Figure 6 is a section on the line [D-F]* E-F of Figure 1;

Figure 7 is a section on the line G-H of Figure 1;

" " Figure 8 is a detail perspective view of the plug which is inserted into the mixing chamber of the burner for the purpose of securing a thorough mixture of gaseous fuel and oxygen; and

Figure 9 is a section through a modified form of primary nozzle, the cutting plane passing through such modified structure in approximately the same place as that in which the plane G-H passes through the structure shown in Figure 1.

[fol. 643] The torch herein disclosed comprises three fundamental parts; a handle, a burner-support and a burner. The handle and the burner-support are pivotally united so that the angular relation between them may be altered; and the burner is detachably secured to the burner-support. These fundamental parts will be described in order.

The Handle.—The handle is a composite structure and includes a tubular casing 1, provided at one end with a base 2, and at the other end with a cap 16. Located within the casing 1 is a tube 9 of less diameter than the casing. The tube 9 extends from the base 2 to the cap 16, the ends of the tube being supplied with wire gauze closures

Per D. 10, retaining in place within the tube[,]* a packing 11 of asbestos or the like. A gas supply pipe 6, controlled by a valve 3, enters the base 2 and communicates with the interior of the tube 9. Oxygen pipes 7 and 8 enter the base 2, the pipe 7 being controlled by a valve 4 and the pipe 8 being controlled by a valve 5. As shown at 12 the pipe 8 passes through the casing 1 and out of the pipe 8

Per D. cap 16, the [portion 12]* entering a head 19, constituting a part of the handle of the torch. The pipe 7, as shown at 14, passes through the casing 1 and enters the head 19. Communication is established between the tube 9 and the head 19 by means of a pipe 17, united with the cap 16 by a connection 18. The parts 12 and 14

[*Words and figures enclosed in brackets erased in copy.]

of the pipes 8 and 7 respectively, are packed with asbestos, as shown at 15. The packings 11 and 15 serve to prevent a [fol. 644] flash-back of the ignited fluids which the pipes 6, 7 and 8 conduct.

In one of the side faces of the head 19 there are concentric annular grooves 20, 22 and 24. A duct 21 in the head 19 serves to establish communication between the pipe 17 and the groove 20, another duct 23 connecting the pipe 7 with the groove 22, and a third duct 25 connecting the pipe 8 with the groove 24.

The Burner-Support.—The burner-support 26 is shown in the form of a block adapted to fit closely against the grooved face of the head portion 19 of the handle. In the face of the burner-support 26 there are concentric annular grooves, registering respectively with the grooves 20, 22 and 24 of the head 19. A pivot element 27 connects the burner-support 26 with the head portion 19 of the handle, so that the burner-support and the handle may assume different relative angles. Owing to the fact that the grooves 20, 22 and 24 of the head are concentric with the corresponding grooves in the burner-support, the fluid conduits through the handle and the burner-support will remain continuous when the burner-support is swung about upon its pivotal connection 27 with the head 19.

In the outer end face of the burner-support 26 there is an annular groove 29 concentric with another annular groove 32, of smaller diameter than the groove 29. A passage 28 in the burner-support 26 serves to establish communication between the groove 29 upon the one hand, and the groove 24 in the head 19 and the registering groove in the burner-support 26 upon the other hand. A passage 31 in the burner-support 26 serves to establish communication between the groove 32 upon the one hand, and the groove 22 in the head 19 and the registering groove in the burner-support 26 upon the other hand. There is a third passage 30 in the burner-support 26, this passage opening at one end into the groove 20 in the head 19 and into the registering groove in the burner-support 26, and at the other end opening through the end wall of the burner-support at the center of the grooves 29 and 32.

[fol. 645] The Burner.—The burner includes a primary nozzle 35 having at one end a lateral flange 34 abutting against the end wall of the burner-support 26. The primary nozzle 35 is removably held upon the burner-support 26 by a collar 36, overlapping the outer face of the flange 34 and threaded upon the burner-support 26. The bore 42 of the primary nozzle 35 is enlarged within the flange 34 of the primary nozzle to form a mixing chamber 43. In the mixing chamber 43 is located a plug 40 having an axial passage 41 communicating at one end with the forward portion of the

mixing chamber 43, and at the other end communicating with the passage 30 in the burner-support 26. In the side wall of the plug 40 there are diagonal grooves 44 communicating at their rear ends with the annular groove 32 in the outer end face of the burner-support 26, and at their forward ends opening into the forward portion of the mixing chamber 43, these grooves 44 being extended across the outer end face of the plug 40, as shown at 45.

The burner further includes a secondary nozzle, comprising a tube 38 seated in a longitudinal groove 47 in the side face of the primary nozzle 35, the tube 38 being removably connected with the flange 34 of the primary nozzle 35. The tube 38 of the secondary nozzle carries a removable cutting tip 39, having a reduced bore communicating with the bore of the tube 38. The bore of the tube 38 opens into a passage 37 through the flange 34 of the primary nozzle 35, the passage 37 opening into an annular groove 33 in the rear face of the flange 34, the groove 33 registering with the groove [fol. 646] 29 in the outer end face of the burner-support 26. The registering grooves 29 and 33, and the groove 32, may contain a packing 100 of asbestos and metallic gauze, for the purpose of preventing a flash-back of the ignited fluids.

Operation.—Presupposing that the controlling valves 3, 4 and 5 are open, the gas which is to be burned will enter the pipe 6 and pass thence through the tube 9 to the pipe 17 and by way of the duct 21 into the annular groove 20, and by way of the passage 30 in the burner-support 26, to the central passage 41 in the plug 40, and into the mixing chamber 43 in front of the plug 40. From the mixing chamber 43, the gas will pass through the bore 42 of the primary nozzle 35, to the extremity of the primary nozzle, at which point the gas will be ignited.

The oxygen entering the pipe 7, will pass through the casing 1 and traverse the duct 23 to enter the groove 22. From the groove 22 the oxygen will traverse the passage 31 and enter the groove 32, passing thence by way of the inclined grooves 44 in the side face of the plug 40 into the mixing chamber 43, and thence with the gas which is simultaneously delivered into the mixing chamber, through the bore 42 of the primary nozzle 35.

Owing to the positions of the grooves 44 in the side walls of the plug 40 and owing to the fact that these grooves extend across the end face of the plug as shown at 45, the oxygen will be given a spiral motion as it enters the mixing [fol. 647] chamber 43, a thorough admixture of gas and oxygen being thereby effected.

The path traversed by the oxygen supplied to the cutting tip 39 is as follows; the pipe 8, the duct 25, the annular groove 24 in the head 19 and its fellow in the burner-support 26, the passage 28, the registering annular grooves 29 and 33

in the burner-support 26 and in the flange 34 of the primary nozzle 35 respectively, the passage 37 through the flange 34, the bore of the tube 38 of the secondary nozzle, and out through the bore of the cutting tip 39 of the secondary nozzle.

When the torch is to be used for welding, the secondary nozzle 38-39 may be removed, the valve 5 being closed. When the troch is to be used for cutting purposes, the secondary nozzle 38-39 will remain in place as shown in Figure 1. The longitudinal grooving of the primary nozzle 35 at 47 to receive the tube 38 of the secondary nozzle, serves to hold the ignition ends of the two nozzle portions of the burner assembled for operation upon the material.

Modification.—In the modified form shown in Figure 9, the primary nozzle 35′ alone is changed, the nozzle 35′ having the same functions as the primary nozzle 35 of Figure 1. The nozzle 35′ is equipped with an axial bore 42′, corresponding to the bore 42 of the nozzle 35. About the bore 42′ are disposed supplemental bores 46. All of the bores 42′ and 46 are for a single purpose, to wit, to serve as conduits which carry a mix-[fol. 648] ture of gas and oxygen from the mixing chamber 43 to the outer end of the primary nozzle 35′, this mixture of gas and oxygen passing, in the structure shown in Figure 1, through the single bore 42 of the primary nozzle 35

Having thus described the invention, what I claim as new and desire to protect by Letters Patent is:

1. In a device of the class described, a handle including a head having annular grooves in one of its faces, and pipes connected with the head, each pipe communicating with a groove to form oxygen and gas conduits; a burner support having annular grooves in one of its faces, registering with the grooves of the head; means for binding the head and the burner-support together for relative angular movement and to hold the grooves of the head and of the burner-support in registration; and a burner carried by the burner-support, the burner having separate bores, each bore communicating with a registering pair of the grooves.

[fol. 649] 2. In a device of the class described, a burner-support; a burner including a primary nozzle and a secondary nozzle removably secured to the primary nozzle; means for removably securing the burner to the burner-support; a handle with which the burner-support is pivotally connected; and means for conveying fluid through the handle to the nozzles, irrespective of the relative positions of the burner-support and the handle.

3. In a device of the class described, a burner-support; a burner removably secured thereto, the burner including a primary nozzle and a secondary nozzle removably secured to the primary nozzle, the secondary nozzle including a removable tip; a handle pivotally connected with the burner-sup-

port, there being separate fluid conduits and an independent conduit, all leading through the handle and through the burner-support, the separate conduits communicating with the primary nozzle and the independent conduit-communicating with the secondary nozzle, there being registering annular grooves in the burner-support and in the handle, constituting parts of the conduits, whereby the continuity of the conduits will be maintained, irrespective of the relative positions of the handle and the burner-support.

Per D.

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4. In a device of the class described, a burner-support; a burner including a primary nozzle abutting against the burner-support and a secondary nozzle removably connected [fol. 650] with the primary nozzle, the secondary nozzle including a removable tip; a collar removably connected with the burner-support and engaging the primary nozzle; and means for supplying fluid to both nozzles.

[Matter enclosed between rules erased in copy.]

4[a] [5].* In a device of the class described, a burner including a primary nozzle having a lateral flange and a longitudinal groove, and a secondary nozzle fitting in the groove and removably engaged with the flange, the secondary nozzle including a removable tip; a burner-support; means for securing the flange to the burner-support; and independent conduits in the burner-support, each of which communicates with the bore of one nozzle.

Per D

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6. In a device of the class described, a nozzle provided with a bore enlarged at one end to form a mixing chamber; a plug removably mounted in the chamber and provided with diagonal grooves in its side face, communicating with the mixing chamber, the plug having a longitudinal opening communicating with the mixing chamber.

[Matter enclosed between rules erased in copy.]

5[a] [7].* In a device of the class described, a nozzle provided with a bore terminally enlarged to form a mixing chamber; a plug removably seated in the mixing chamber and having diagonally disposed grooves

and

Per D.

[*Words and figures enclosed in brackets erased in copy.]

in its side face, extended upon the end face of the plug within the mixing chamber, there being an opening in the interior of the plug, communicating with the mixing chamber.

[fol. 651] 6d [8].* In a device of the class described, a burner-support and a burner disposed in terminal abutment, there being registering annular grooves in the meeting faces of the burner-support and the burner; a packing in the grooves; means for supplying fluid to the grooves on one side of the packing; and means for establishing communication between the bore of the burner and the grooves upon the other side of the packing.

7d [9].* In a device of the class described, a burner-support and a handle having registering annular grooves in their faces; means for binding the burner-support and the handle together for relative angular movement, and for holding said faces in intimate contact, to maintain the grooves in registration; a burner carried by the burner-support, the burner and the burner-support having communications with the grooves; the handle including means for supplying fluid to the grooves.

and

Per D.

Per D

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10. In a device of the class described, a burner-support; a burner carried thereby and including a primary welding nozzle and a secondary cutting nozzle, the cutting nozzle being removable; means for supplying fluid to the primary nozzle; means for supplying fluid to the secondary nozzle; and means for cutting off the supply of the secondary nozzle.

11. In a device of the class described, a handle and a burner-support, one of which is provided with an annular [fol. 652] groove, the other of which is provided with a passage opening into the groove; a burner carried by the burner-support and having communication with the groove and the passage; means for pivotally connecting the burner-support and the handle, whereby the passage will remain in communication with the groove when the relative positions of the burner-support and the handle are changed.

[Matter enclosed between rules erased in copy.]

All of which is respectfully submitted.

C. A. Snow & Co.

(Here follows drawing marked side folio page 652a)

[*Words and figures enclosed in brackets erased in copy.]

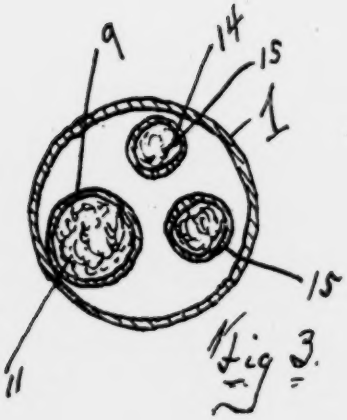


Fig 3.

48

652 a

[fol. 653] Patent Office,
Oct. 20, 1911,
Mailed.

2—260

Div. 30, Room 152

Address only "The Commissioner of Patents, Washington, D. C.," and not any official by name.
A. M. F.

Paper No. 7

All communications respecting this application should give the serial number, date of filing, title of invention and name of the applicant.

Department of the Interior,
United States Patent Office,
Washington, October 20, 1911.

Harlon A. Clifford,
C/o C. A. Snow & Co.,
Washington, D. C.:

Please find below a communication from the examiner in charge of your application. Serial No. 605,741, Torch, filed Jan. 31, 1911.
E. B. Moore, Commissioner of Patents.

In response to amendments filed Sept. 11 and Oct. 4, 1911.
The objection to the drawing is repeated. The drawing has not been corrected.
Permission to show packing in pipe 14 is granted.
Page 5 of the substitute specification, line 6, "D–F" should be —E–F—. Line 8, —view— should be inserted after "perspective."
Page 6, lines 13 and 14 do not make sense. Line 20 does not agree with the drawing which shows pipe 8 "entering a head 19".
Claims 1, 2 and 3 appear allowable.
Claim 4 is rejected on patent to Johnson, 969,875, of record.
Claim 5 appears allowable.
Claim 6 is rejected on English patent to Mangiameli, et al., 13,272 of 1908, 158-109.
Clam 7 is objectionable. The word —and— should be inserted in line 3, after the semicolon. The subject matter of claim 7 appears allowable.
Claim 8 appears allowable.
Claim 9 is objectionable. The word —and— should be inserted [fol. 654] in line 6, after the semicolon. The subject matter of claim 9 appears allowable.
Claim 10 is rejected on patent to Delcampe, 894,195, July 28, 1908, 158-109, X-ref.
Claim 11 is rejected on patent to Bruckner, 935,458, Sept. 28, 1909, 158-109.

M. R. Sullivan, Examiner. C. J. S.

Application Room,
Nov. 28, 1911,
U. S. Patent Office.

D. Paper No. 8

Paper No. 8

Nov. 29, 1911, Division XXX, Room 152

ML/BAS.

Harlon A. Clifford. Torch. Filed Jan. 31, 1911. Serial No. 605,741

The Commissioner of Patents.

SIR: Office action of Oct. 20, 1911 at hand and contents noted.

Applicant's attorneys have directed their draftsman to correct the drawings.

Page 5, line 6, cancel "D-F" and insert "*E-F*". Line 8, after "perspective" insert "*view*."

Page 6, line 13, cancel the comma after "tube." Line 20, cancel "portion 12" and insert "*pipe* 8."

Claim 7, line 3, before "a" insert "*and*."

Claim 9, line 6, before "a" insert "*and*."

Cancel claims 4, 6, 10 and 11, and renumber.

The case appears to be in condition to be passed out.

Respectfully submitted, C. A. Snow & Co.

[fol. 655] 2—603

Letter No. —.

Serial No. 605,741

Address only the Commissioner of Patents, Washington, D. C.
K. O'D.

Department of the Interior,
United States Patent Office,
Washington, Dec. 12, 1911.

Harlon A. Clifford, c/o C. A. Snow & Co., Washington, D. C.

SIR: Your application for a patent for an improvement in torch, filed Jan. 31, 1911, has been examined and allowed.

The final fee, twenty dollars, must be paid not later than six months from the date of this present notice of allowance. If the final fee be not paid within that period the patent on this application will be withheld, unless renewed with an additional fee of $15, under the provisions of Section 4897, Revised Statutes.

The office delivers patents upon the day of their date, and on which their term begins to run. The printing, photolithographing, and engrossing of the several patent parts, preparatory to final signing and

sealing, will require about four weeks, and such work will not be undertaken until after payment of the necessary fee.

When you send the final fee you will also send distinctly and plainly written, the name of the inventor and title of invention as above given, date of allowance (which is the date of this circular), date of filing, and, if assigned, the names of the assignees.

If you desire to have the patent issue to assignees, an assignment containing a request to that effect, together with the fee for recording the same, must be filed in this office on or before the date of payment of final fee.

After issue of the patent uncertified copies of the drawings and specifications may be purchased at the price of five cents each. The money should accompany the order. Postage stamps will not be received.

Final fees will not be received from other than the applicant, his assignee or attorney, or a party in interest as shown by the records of the Patent Office.

Respectfully, E. B. Moore, Commissioner of Patents.

[On left margin:] In remitting the final fee give the serial number at the head of this notice.

[On right margin:] Uncertified checks will not be accepted.

[fol. 656] $20 Received Jan. 10, 1912. C. Chief Clerk, U. S. Patent Office

2—327

Memorandum of Fee Paid at United States Patent Office

(Be careful to give correct Serial No.)

Serial No. 605,741, —— —, 1900.
Inventor: Harlon A. Clifford.
Patent to be issued to inventor.
Name of invention, as allowed: Torch.
Date of payment: Jan. 10, 1912.
Fee: $20.
Date of filing: Jan. 31, 1911.
Date of circular of allowance: Dec. 12, 1911.

The Commissioner of Patents will please apply the accompanying fee as indicated above.

C. A. Snow & Co., Attorneys.

Send patent to Harlon A. Clifford, 4 Olive St., Greenfield, Mass.

[fol. 657] 2—191

Serial No. 605,741

Address only "The Commissioner of Patents, Washington, D. C." Patent will issue Feb. 6. 1912.

Harlon A. Clifford, c/o C. A. Snow, Wash., D. C.

SIR: You are informed that the final fee of twenty dollars has been received in your application for Improvement in torch: date of receipt, Jan. 10, 1912.

Very respectfully, E. B. Moore, Commissioner of Patents.

1911

Contents

Print, Jan. 31, 1911.

1. Application, 1 paper[s].*
2. Rejection, Mar. 8, 1911.
3. Amendment A, Jun. 12, 1911.
4. Rejection, Jun. 22, 1911.
5. Amendment B, Sep. 11, 1911.
6. Amendment C, Oct. 4, 1911.
7. Rejection, Oct. 20, 1911.
8. Amendment D, Nov. 28, 1911.

(Here follow side folio pages 658, 659, 660, and 661; side folio pages 662 to 750, inclusive, omitted in printing)

[fol. 751] IN UNITED STATES DISTRICT COURT

[Title omitted]

OPINION, LEARNED HAND, D. J.—Jan. 8, 1924

On final hearing of the usual bill in equity for infringement of patents, 874,666; 1,028,410; and 880,099. All these patents relate to the art of oxy-acetylene torches; the first two for cutting metals, the second for welding. The first provided for bringing the two gases in a mixture to the work in a circle or arc of pencil-like flames. In the centre was the oxygen flame which burns the superheated metal and thus produces the cut. The patent pre-supposed the general art and was limited to the form of tip disclosed.

The second patent was for a supporting head in such a torch into which could be inserted interchangeable unitary tips. In the progress of such work, it is often desirable to change the proportions of the mixture and the relation of mixture to cutting jet. This can [fol. 752] be done by changes in the size of the bores or ducts in the tip. The patent is for such tips in combination with a single head.

The third patent is for a welding torch, that is, one in which the cutting jet is absent. It bore a similar relation of the welding art that the second patent bore to the cutting art. That is, it provided for an interchangeable tip in which the gases might be mixed, the mixture dependent upon the calibre of the ducts.

Dean S. Edmonds, for the plaintiff.
James A. Watson, for the defendant.

[*Words and figures enclosed in brackets erased in copy.]

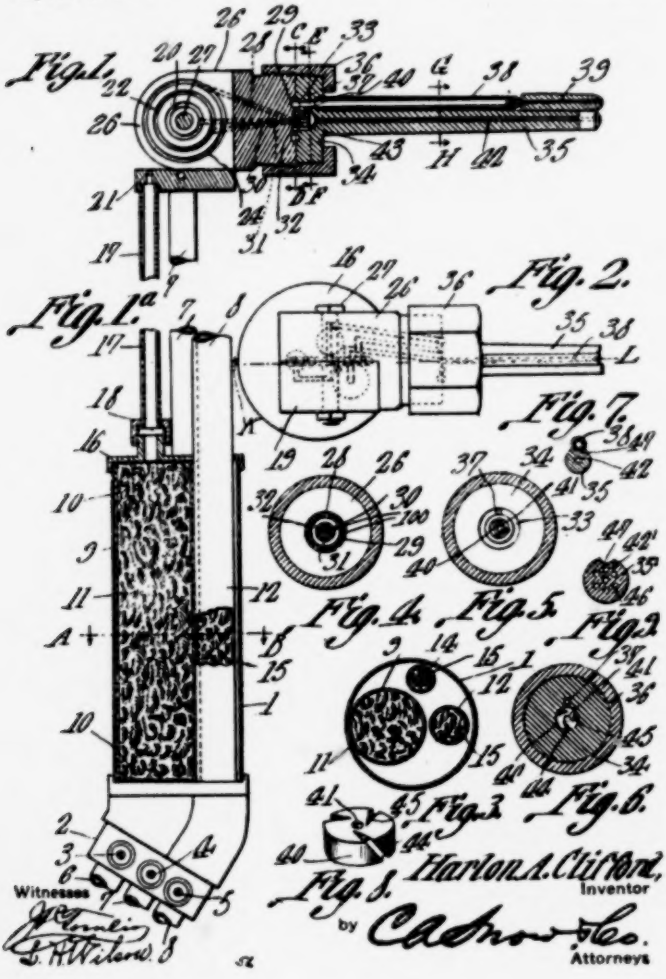
H. A. CLIFFORD.

TORCH.

APPLICATION FILED JAN. 31, 1911.

1,016,613.

Patented Feb. 6, 1912.



UNITED STATES PATENT OFFICE.

HARLOW A. CLIFFORD, OF JERSEY CITY, NEW JERSEY.

TORCH.

1,016,613. Specification of Letters Patent. Patented Feb. 6, 1912.

Application filed January 21, 1911. Serial No. 603,741.

To all whom it may concern:

Be it known that I, HARLOW A. CLIFFORD, a citizen of the United States, residing at Jersey City, in the county of Hudson and State of New Jersey, have invented a new and useful Torch, of which the following is a specification.

The device forming the subject matter of this application is a torch adapted to be employed for applying a mixture of oxygen and gaseous fuel to a material, for the purpose of welding and for cutting the same.

The invention aims to provide a torch of this character in which the angle between the burner and the handle may be changed without interfering with the flow of fluid through the handle and to the burner.

A further object of the invention is to provide novel means for securing a thorough mixture of gaseous fuel and oxygen in the mixing chamber of the burner.

The invention is designed, moreover, to provide a torch having separable cutting and welding elements, each provided with an individual fluid supply.

Another object of the invention is to provide means for preventing a flash-back of the ignited fluids.

Novel means are supplied for assembling the various elements of the torch in operative relation to one another.

With the foregoing and other objects in view which will appear as the description proceeds, the invention resides in the combination and arrangement of parts and in the details of construction hereinafter described and claimed, it being understood that changes in the precise embodiment of invention herein disclosed can be made within the scope of what is claimed without departing from the spirit of the invention.

In the accompanying drawings,—Figure 1 is a section of the burner, the burner-support and a portion of the handle, upon the line K—L of Fig. 2, parts appearing in elevation; Fig. 1ª is a sectional elevation of a portion of the handle, Figs. 1 and 1ª being complemental and showing the handle and the burner of the torch rectangularly disposed; Fig. 2 is a top plan showing a portion of the burner, the burner-support, and that portion of the handle to which the burner-support is immediately pivoted; Fig. 3 is a transverse section through the casing portion of the handle, upon the line A—B of Fig. 1ª; Figs. 4 and 5 are sections upon the line C—D of Fig. 1, looking to the left in Fig. 4 and to the right in Fig. 5; Fig. 6 is a section on the line E—F of Fig. 1; Fig. 7 is a section on the line G—H of Fig. 1; Fig. 8 is a detail perspective view of the plug which is inserted into the mixing chamber of the burner for the purpose of securing a thorough mixture of gaseous fuel and oxygen; and Fig. 9 is a section through a modified form of primary nozzle, the cutting plane passing through such modified structure in approximately the same place as that in which the plane G—H passes through the structure shown in Fig. 1.

The torch herein disclosed comprises three fundamental parts; a handle, a burner-support and a burner. The handle and the burner-support are pivotally united so that the angular relation between them may be altered; and the burner is detachably secured to the burner-support. These fundamental parts will be described in order.

The handle.—The handle is a composite structure and includes a tubular casing 1, provided at one end with a base 2, and at the other end with a cap 16. Located within the casing 1 is a tube 9 of less diameter than the casing. The tube 9 extends from the base 2 to the cap 16, the ends of the tube being supplied with wire gauze closures 10, retaining in place within the tube a packing 11 of asbestos or the like. A gas supply pipe 6, controlled by a valve 3, enters the base 2 and communicates with the interior of the tube 9. Oxygen pipes 7 and 8 enter the base 2, the pipe 7 being controlled by a valve 4 and the pipe 8 being controlled by a valve 5. As shown at 12 the pipe 8 passes through the casing 1 and out of the cap 16, the pipe 8 entering a head 19, constituting a part of the handle of the torch. The pipe 7, as shown at 14, passes through the casing 1 and enters the head 19. Communication is established between the tube 9 and the head 19 by means of a pipe 17, united with the cap 16 by a connection 18. The parts 12 and 14 of the pipes 8 and 7 respectively, are packed with asbestos, as shown at 15. The packings 11 and 15 serve to prevent a flash-back of the ignited fluids which the pipes 6, 7 and 8 conduct. In one of the side faces of the head 19 there are concentric annular grooves 20, 22 and 24. A duct 21 in the head 19 serves to establish communication between the pipe 17 and the

groove 20, another duct 23 connecting the pipe 7 with the groove 22, and a third duct 25 connecting the pipe 8 with the groove 24.

The burner-support.—The burner-support 26 is shown in the form of a block adapted to fit closely against the grooved face of the head portion 19 of the handle. In the face of the burner-support 26 there are concentric annular grooves, registering respectively with the grooves 20, 22 and 24 of the head 19. A pivot element 27 connects the burner-support 26 with the head portion 19 of the handle, so that the burner-support and the handle may assume different relative angles. Owing to the fact that the grooves 20, 22 and 24 of the head are concentric with the corresponding grooves in the burner-support, the fluid conduits through the handle and the burner-support will remain continuous when the burner-support is swung about upon its pivotal connection 27 with the head 19.

In the outer end face of the burner-support 26 there is an annular groove 29 concentric with another annular groove 32, of smaller diameter than the groove 29. A passage 28 in the burner-support 26 serves to establish communication between the groove 29 upon the one hand, and the groove 24 in the head 19 and the registering groove in the burner-support 26 upon the other hand. A passage 31 in the burner-support 26 serves to establish communication between the groove 32 upon the one hand, and the groove 22 in the head 19 and the registering groove in the burner-support 26 upon the other hand. There is a third passage 30 in the burner-support 26, this passage opening at one end into the groove 20 in the head 19 and into the registering groove in the burner-support 26, and at the other end opening through the end wall of the burner-support at the center of the grooves 29 and 32.

The burner.—The burner includes a primary nozzle 35 having at one end a lateral flange 34 abutting against the end wall of the burner-support 26. The primary nozzle 35 is removably held upon the burner-support 26 by a collar 36, overlapping the outer face of the flange 34 and threaded upon the burner-support 26. The bore 42 of the primary nozzle 35 is enlarged within the flange 34 of the primary nozzle to form a mixing chamber 43. In the mixing chamber 43 is located a plug 40 having an axial passage 41 communicating at one end with the forward portion of the mixing chamber 43, and at the other end communicating with the passage 30 in the burner-support 26. In the side wall of the plug 40 there are diagonal grooves 44 communicating at their rear ends with the annular groove 32 in the outer end face of the burner-support 26, and at their forward ends opening into the forward portion of the mixing chamber 43, these grooves 44 being extended across the outer end face of the plug 40, as shown at 45. The burner further includes a secondary nozzle, comprising a tube 38 seated in a longitudinal groove 47 in the side face of the primary nozzle 35, the tube 38 being removably connected with the flange 34 of the primary nozzle 35. The tube 38 of the secondary nozzle carries a removable cutting tip 39, having a reduced bore communicating with the bore of the tube 38. The bore of the tube 38 opens into a passage 37 through the flange 34 of the primary nozzle 35, the passage 37 opening into an annular groove 33 in the rear face of the flange 34, the groove 33 registering with the groove 29 in the outer end face of the burner-support 26. The registering grooves 29 and 33, and the groove 32, may contain a packing 100 of asbestos and metallic gauze, for the purpose of preventing a flash-back of the ignited fluids.

Operation.—Presupposing that the controlling valves 3, 4 and 5 are open, the gas which is to be burned will enter the pipe 6 and pass thence through the tube 9 to the pipe 17 and by way of the duct 21 into the annular groove 20, and by way of the passage 30 in the burner-support 26, to the central passage 41 in the plug 40, and into the mixing chamber 43 in front of the plug 40. From the mixing chamber 43, the gas will pass through the bore 42 of the primary nozzle 35, to the extremity of the primary nozzle, at which point the gas will be ignited. The oxygen entering the pipe 7, will pass through the casing 1 and traverse the duct 23 to enter the groove 22. From the groove 22 the oxygen will traverse the passage 31 and enter the groove 32, passing thence by way of the inclined grooves 44 in the side face of the plug 40 into the mixing chamber 43, and thence with the gas which is simultaneously delivered into the mixing chamber, through the bore 42 of the primary nozzle 35. Owing to the positions of the grooves 44 in the side walls of the plug 40 and owing to the fact that these grooves extend across the end face of the plug as shown at 45, the oxygen will be given a spiral motion as it enters the mixing chamber 43, a thorough admixture of gas and oxygen being thereby effected. The path traversed by the oxygen supplied to the cutting tip 39 is as follows; the pipe 8, the duct 25, the annular groove 24 in the head 19 and its fellow in the burner-support 26, the passage 28, the registering annular grooves 29 and 33 in the burner-support 26 and in the flange 34 of the primary nozzle 35 respectively, the passage 37 through the flange 34, the bore of the tube 38 of the secondary nozzle, and out through the bore of the cutting tip 39 of the secondary nozzle.

When the torch is to be used for welding, the secondary nozzle 38—39 may be removed, the valve 5 being closed. When the torch is to be used for cutting purposes, the secondary nozzle 38—39 will remain in place as shown in Fig. 1. The longitudinal grooving of the primary nozzle 35 at 47 to receive the tube 38 of the secondary nozzle, serves to hold the ignition ends of the two nozzle portions of the burner assembled for operation upon the material.

Modification.—In the modified form shown in Fig. 9, the primary nozzle 35′ alone is changed, the nozzle 35′ having the same functions as the primary nozzle 35 of Fig. 1. The nozzle 35′ is equipped with an axial bore 42′, corresponding to the bore 42 of the nozzle 35. About the bore 42′ are disposed supplemental bores 46. All of the bores 42′ and 46 are for a single purpose, to wit, to serve as conduits which carry a mixture of gas and oxygen from the mixing chamber 43 to the outer end of the primary nozzle 35′, this mixture of gas and oxygen passing, in the structure shown in Fig. 1, through the single bore 42 of the primary nozzle 35.

Having thus described the invention, what I claim as new and desire to protect by Letters Patent is:

1. In a device of the class described, a handle including a head having annular grooves in one of its faces, and pipes connected with the head, each pipe communicating with a groove to form oxygen and gas conduits; a burner support having annular grooves in one of its faces, registering with the grooves of the head; means for binding the head and the burner-support together for relative angular movement and to hold the grooves of the head and of the burner-support in registration; and a burner carried by the burner-support, the burner having separate bores, each bore communicating with a registering pair of the grooves.

2. In a device of the class described, a burner-support; a burner including a primary nozzle and a secondary nozzle removably secured to the primary nozzle; means for removably securing the burner to the burner-support; a handle with which the burner-support is pivotally connected; and means for conveying fluid through the handle to the nozzles, irrespective of the relative positions of the burner-support and the handle.

3. In a device of the class described, a burner-support; a burner removably secured thereto, the burner including a primary nozzle and a secondary nozzle removably secured to the primary nozzle, the secondary nozzle including a removable tip; a handle pivotally connected with the burner-support, there being separate fluid conduits and an independent conduit, all leading through the handle and through the burner-support, the separate conduits communicating with the primary nozzle and the independent conduit communicating with the secondary nozzle, there being registering annular grooves in the burner-support and in the handle, constituting parts of the conduits, whereby the continuity of the conduits will be maintained, irrespective of the relative positions of the handle and the burner-support.

4. In a device of the class described, a burner including a primary nozzle having a lateral flange and a longitudinal groove, and a secondary nozzle fitting in the groove and removably engaged with the flange, the secondary nozzle including a removable tip; a burner-support; means for securing the flange to the burner-support; and independent conduits in the burner-support, each of which communicates with the bore of one nozzle.

5. In a device of the class described, a nozzle provided with a bore terminally enlarged to form a mixing chamber; and a plug removably seated in the mixing chamber and having diagonally disposed grooves in its side face, extended upon the end face of the plug within the mixing chamber, there being an opening in the interior of the plug, communicating with the mixing chamber.

6. In a device of the class described, a burner-support and a burner disposed in terminal abutment, there being registering annular grooves in the meeting faces of the burner-support and the burner; a packing in the grooves; means for supplying fluid to the grooves on one side of the packing; and means for establishing communication between the bore of the burner and the grooves upon the other side of the packing.

7. In a device of the class described, a burner-support and a handle having registering annular grooves in their faces; means for binding the burner-support and the handle together for relative angular movement, and for holding said faces in intimate contact, to maintain the grooves in registration; and a burner carried by the burner-support, the burner and the burner-support having communications with the grooves; the handle including means for supplying fluid to the grooves.

In testimony that I claim the foregoing as my own, I have hereto affixed my signature in the presence of two witnesses.

HARLON A. CLIFFORD.

Witnesses:
DELAVAN PROVOST,
LEO C. CLIFFORD.

Patent 874,666

LEARNED HAND, D. J.:

This patent was applied for on April 5, 1907, when the art was in its infancy. It is reasonably clear that the patentees at the time did not recognize the full value of their invention but the fact remains, whether they did or not, that they happened upon a device which became the accepted form, which has displaced all others, and which seems likely to be the final tool by which metals will be cut under this process. As such the patent is entitled to much favor from a court, especially as it appears that for nearly its whole life it has secured the substantial acquiescence of the trade. The nature of the attack upon it confirms the impression which these considerations suggest.

[fol. 753] The defendant's first complaint is that the invention is not disclosed because the specifications do not definitely show that there must be a series of holes for the combustible gas. It is quite true that the patentees did not limit their invention to such a series completely encircling the oxygen jet, and in so doing they betrayed their incomplete knowledge of what later experience has disclosed. On the other hand they showed beyond question that they meant to have the oxygen jet surrounded for a substantial arc anyway with combustion holes and that this was the sole purpose of their invention, distinguishing it on the one hand from Menne, who had a ring of flame, and from Jottrand, who had a single flame in advance. That there were advantages in this as against either extreme, time has amply proved.

It would scarcely seem necessary to go over the text of the patent to prove that this was in fact the disclosure, were it not for the insistence of the defendant. The patent leads off (page 1, lines 13-15), with a statement that the invention consists of bringing to the work the heating gas "in a plurality of streams." Again (lines 25-29), that the heating gas is lead to the metal "in several independent streams * * * to bring about a more intense heating." The diagrams show at the least three holes for heating, and the specifications always speak of the heating holes in the plural. Indeed there is not the faintest color for a contrary supposition except that at one place (page 1, lines 42, 43), the patentees speak of the pos-

[fol. 754] sibility of "leading the combustible only at one of the gas outlets." That the tool may be so used is true enough, but the patent is not for a process but for a mechanical device, and the patentee in this passage merely shows how it is possible, if desired, to use the tool in the ways of the prior art.

The next attack depends upon the fact that the examiner required the patentee to insert in all his claims a limitation that the heating outlets and the cutting outlet must be parallel. The specifications refer to these outlets, but nowhere describe them as parallel, though the drawings clearly show them to be such. The defendant argues that one may not look to the drawings to supply a defect in the specifications, Gunn v. Savage, 30 Fed. Rep. 366; Windle v. Parks & Woolson Mach. Co., 134 Fed. Rep. 381; Fulton Co. v.

Powers Regulator Co., 263 Fed. Rep. 578, 581; George Cutter Co. v. Metropolitan etc. Co., 275 Fed. Rep. 158, 162. If so, he says, there is an element in the claims which is not found in the specifications and the disclosure is void. Since the limitation is so simple that the mere statement of it is enough, it is obvious that there could not be a more technical and formal objection to a meritorious invention.

There are, however, two answers, each complete. The first is that the rule in question has never gone further than to refuse to allow diagrams to supply an element altogether lacking from the specifications, and second, that the parallelism is not a feature of the speci- [fol. 755] fications at all but merely a limitation imposed upon the claim. All the cases cited except the last recognize that the drawings are admissible to clear up any details of the specifications which are ambiguous. The last case cited does not dispute this rule. In the case at bar the relative direction of the outlets is not specified, but they are merely mentioned since it was scarcely necessary to describe them at all. One must look to the drawings for a definite understanding of how the tool is to be organized in this regard, but since all the features are mentioned and described generally, one has the right to do so. If it were essential to the practice of the invention, which it is not, that the outlets should be parallel, the drawings might therefore be resorted to to show their direction and shape.

But the whole argument misconceives the action of the examiner and the patentee. The parallelism of the outlets was not a necessary element to the disclosure. Indeed Murphy's patent on which the original claims were rejected showed converging outlets. Perhaps the best tool will not be so made, but there is no reason whatever to say that if the outlets are not parallel the torch will not cut. Thus the detail added was in no sense a necessary part of the disclosure. All that happened was that the examiner refused to allow the claim as broadly as the disclosure would have justified. That does not make a patent void, of course, and the patentees quite sensibly agreed to the limitation because the claims still gave them all that they really wanted.

[fol. 756] There is no relevant prior art but Menne and Jottrand from each of which the patentees diverged. If it was an easy step from either to the patent in suit, it is curious that the art did not at once see it. The fact is that it took considerable experience and knowledge to see that in metal cutting it was necessary to "preheat" an area considerably larger than the cut in order to get the metal to the requisite temperature for actual combustion. Indeed, Menne's machine was not a cutter at all, though in view of Linde Air Products Co. v. Morse Dry Dock Co., 246 Fed. Rep. 834, it should be regarded as a relevant reference. Still, one cannot make proper cuts with a heating ring, and the division of such a ring into 6 to 8 small flames was as much an invention as to multiply Jottrand's single flame. The patent is not indeed a pioneer, but it was apparently final, and stabilized the cutting torch. I cannot see on what theory it can be declared invalid.

The plaintiff may take the usual decree on claim one.

Patent, 1,028,410

There is no doubt as to the infringement of this patent and that issue requires no discussion. The defendant's tip has merely flattened the cone of the patent upon itself and into a flat surface, and the claims in suit, Nos. 3, 6 and 7, read upon it literally as well as functionally. Thus the case turns upon validity. There can be [fol. 757] no pretence for claiming a broad invention; the disclosure is important only because it enabled a quick change of tip for variations in the necessities of the work. Yet there is no reason why, so far as it went, it should not be protected. The defendant's position depends upon two classes of anticipations, first those which issued before Whitford filed his original application, Mar. 4, 1911, and second those which were filed before that date, but had not issued till later.

In the first class there is strictly only Bruckner, 935,458. This torch was not a cutter at all but a welder, and the invention was primarily to allow the angle between the handle and the head with its tip to be varied so as to accommodate itself to difficult corners of the work. I agree that so far as Whitford's disclosure was a welder this would be a complete anticipation. The tip is unitary; in figure 5 and figure 3 (vide page 2, lines 4–6), the two gases are led into a common duct which forms a mixing chamber in an almost identical way with Whitford's. They do not mix until they reach that duct and their proportion could be controlled by the calibre of the ducts. What, then, it may be asked, was there left to do except to add an independent duct for the cutting jet and connect it properly to a source? There was indeed nothing more to do, and for that matter nothing to do after the welder patent in suit, 880,099, but to add a cutting jet and make it integral with the tip. Yet though the patent to Rodrigues-Ely 880,099, was issued in 1908, application was not [fol. 758] made for the patent in suit till 1911. Even if there are no great mechanical obstacles of design once you wanted a unitary tip, the idea had never before appeared in the art, which had proceeded by the awkward expedient of bringing the cutting jet to the work in an independent tip with a separate pipe. The added convenience of the combination was very considerable.

The defendant tried to prove a prior use of the invention in suit by one Wright. The evidence is not clear as to when Wright sold the torches which are disclosed in figures 4 and 5 of his patent as exemplified in Exhibits B1 and A1 respectively. The documents offered in support of his testimony, Exhibits C1 and D1, do not identify the kind of torches to which they refer and Exhibit D1 in February, 1911, refers to work still experimental. It is of course possible that Wright may have marketed some of his torches between the date of his application January 27, 1911, and Whitford's original application on March 4, 1911, and perhaps it is not unlikely that he did so before January 31, 1912, the date of the divided application. But as it is the date of the original application which counts, the proof is insufficient to show beyond doubt that his torches were

on sale or in public use before that time. Thus on any showing Wright's patent would have to stand only as an earlier application.

However, I regard Wright's whole invention as irrelevant, because the disclosure is not the same. He led his two heating gases into an [fol. 759] aperture in the head where the mixing began. The tip fitted into this aperture but did not wholly fill it, and there were but two ducts in the tip instead of three as in Whitford, Reich and Clifford. Obviously this did not allow for variation in the composition of the heating mixture by mere changes in the tip. The ducts in the head being necessarily constant in bore, the deliveries of oxygen and acetylene, given the pressures, must be always the same and the mixture could be changed only by changes of pressure. In Whitford the ducts for oxygen and acetylene were in the tip and the mixing did not begin outside it. Thus the quality of the heating mixture can be made to vary by differences in their relative bores, that is by the substitution of a tip in which the bores varied. This was what the art wanted, contributing, as it did, very markedly to the convenience of the operator, who had only to substitute the proper tip when he wanted a different mixture.

In the second class, i. e., those pending when Whitford's application was filed, there are three relevant patents, Brousseau, 992,156, Clifford, 1,018,613, and Reich, 1,097,203. Strictly speaking all are alike in point of law, but Brousseau viewed only as disclosure does not seem to me to anticipate and I shall therefore consider it separately as though it were part of the prior art. It was a cutting torch, unlike Bruckner, and, save for a detail which I shall mention in a moment, it would anticipate. That detail is that the tip was divided in two. The tip proper contained only two ducts, that for the cutting jet and [fol. 760] that for the mixed combustible. Above the tip was a cylindrical member, 12, in which there were three inlets, one for the cutting jet, and two for the two combustible gases, which began their mixture in the member itself. It is quite likely that the reason why Brousseau did not incorporate this member into the tip was that he inserted in the mixing chamber a curious conical member 32, designed to secure a more intimate mixture. This it would have been impossible to do if the tip had not been in two pieces.

However, the tip as it stands is not single, and is incapable of the advantages of the plaintiff's and defendant's device. It is indeed sometimes said that there can be no invention in making into two parts what was single, or vice versa. So far as such statements explain any given situation, they are very well, but they should not be taken as positive rules of general application. It is often an invention of considerable merit to combine into one part what everyone had theretofore thought must be in two. In the case at bar it is certain that Brosseau's torch was not fitted as a universal head for interchangeable tips, and that it required the suggestion from someone else to make it so. It is true that once one thought of it, there was not much trouble in making the changes, but that is often so. Experience might show that it was unnecessary to adopt Brosseau's awkward member, 32, and that the remaining two parts might be consolidated, but that experience was apparently not yet at hand.

[fol. 761] Regardless of the fact therefore that his application was pending with Whitford's I see no reason to treat his disclosure as an anticipation.

In the second class the patents to Reich, 1,097,203, and Clifford, 1,016,613, are however quite different from Brousseau and the plaintiff cannot escape them as disclosures. Clifford would certainly have anticipated, and I understand that the plaintiff does not dispute it. Reich's disclosure is equally good, and indeed the only challenge to it is that it would be inoperative. That is, however, something which I have no right to assume. Certainly the flash-back valve is not a part of claims two and three of that patent. They might be practiced after omitting the valve which required no ingenuity. The valve was the only thing which could by any chance be thought to make the disclosure inoperable. On the other hand none of their claims conflict with the claims in suit. Upon the same disclosure, or more accurately upon a disclosure which could support Whitford's claims, these earlier inventors sought and obtained claims made up of different combinations from those claimed by Whitford.

The question is therefore squarely presented whether on the issue of prior invention it is the claims or the disclosure which counts. That question is unfortunately left in much confusion in the cases. On principle it would seem that the claims were the place to look for the "invention." The disclosure, so far as it is only a description of [fol. 762] the machine, process or composition, is certainly not the invention proper. It does not tell which of the various elements disclosed the patentee selects as the combination which it will be profitable to follow. Without some such selection the art is left without cue for omission and must reproduce the whole disclosure in all its details. The claims alone give any scope to the invention and some scope is essential to its value. It would seem that the "invention" must lie in the act of selecting out of the possible combinations which will read upon the disclosure, such as are new and useful. Leonard Co. v. Maxwell etc. Co., 252 Fed. Rep. 584, 593 (C. C. A. 2).

Therefore, at least a priori, the "invention" must be found in the claims and in the claims alone, as was said categorically by Hough, J., in the District Court in Leonard Co. v. Maxwell etc. Co., 288 Fed. Rep. 62, 67. Indeed, that in my judgment is the strict theory, though some latitude is given in its application, as I shall hope to show. If so, when the issue arises of prior invention between two persons, whether it be on interference or when raised by an infringer, it should be decided only by a comparison of the claims, i. e., of that part of the patent or application which sets out what combinations of the elements disclosed the applicant says are his new and useful contributions to the art. That appears to me to be the meaning of Sundh v. Interborough etc. Co., 198 Fed. Rep. 94 (C. C. A. 2).

It may be argued that, if so, then logically it ought to be possible to [fol. 763] make new "inventions" out of published disclosures, which Revised Statutes Section 4886 forbids. I reply that Section 4886 does not attempt to define what are "inventions" but ex proprio vigore throws into the public domain all disclosures once published. It is indeed possible to make new "inventions" out of such dis-

closures, selecting new and useful combinations from their elements which no one has hitherto observed. The reason such "inventions" will not support a patent is not because they are not "inventions" but merely because the statute requires as a condition that the description of the machine, process or composition in which the patented "invention" is embodied shall not itself have been published before. That is quite another matter from saying that there is no new "invention" and the confusion of the two has caused much uncertainty.

Therefore, if a disclosure is not published, the question of prior "invention" ought to depend altogether upon whether the claims of the patent in suit are themselves new, and in the case at bar neither Reich nor Clifford can be set up as prior inventors. In deciding this question Revised Statutes Section 4920 ought not to be considered at all; it is a mere rule of pleading, drawn from the analogy of those rules of the common law which required notice of evidence to be given under the general issue. Its incorporation into a statute is unfortunate, because it has led to the supposition that it added something to the definition of the conditions on which a patent might issue as contained in Section 4886.

[fol. 764] The matter is not, however, as clear as the foregoing would make it, which I have purposely oversimplified. For example, when the question is of double patenting, which is another aspect of precisely the same thing, it is not enough that the claims differ, Miller v. Eagle etc. Co., 151 U. S. 186, 196-202. The term "invention", covers more than the claims and how much more is very vague. Again, under Revised Statutes Section 4916, the re-issue section, it must appear that the matter added must be part of the same "invention". Obviously, if the "invention" lay only in the claims, the claims could not be substantially changed, i. e., no new claims could be added for different combinations of the elements disclosed, not even if they were for species of the genus already claimed.

It is apparent, therefore, that the law has not developed with such nice logical precision as in implied in what I have said. For example in Hilliard v. Fisher etc. Co., 159 Fed. Rep. 439, (C. C. A. 2), the court decided the case upon a comparison of the disclosures, and in Otis Elevator Co. v. Interborough etc. Co., 222 Fed. Rep. 501 (C. C. A. 2), upon the priority of discovery. All that was decided in Vacuum etc. Co. v. Dunn, 209 Fed. Rep. 219, (C. C. A. 2), was that a pending application was not a part of the prior art.

In Diamond etc Co. v. Kelly Bros., (No. 1), 120 Fed. Rep. 282, Judge Archbald distinguished between the effect of an earlier application as disclosure and as proof of prior invention, though he did not [fol. 765] say how they were to be distinguished.

Farmers' etc. Co. v. Beaver etc. Co., 236 Fed. Rep. 731, (C. C. A. 7), turned upon a comparison between the claims of patents copending with the patent in suit, though the case is not wholly clear. It cited Sundh v. Interborough etc. Co., supra, and (very curiously), Barnes etc. Co. v. Walworth etc. Co., 60 Fed. Rep. 605 (C. C. A. 7). I say "very curiously" because Barnes etc. Co. v. Walworth etc. Co., supra, held nothing of the kind but apparently that the disclosure

is what counts on the issue of prior invention thus making the difference between the third and fourth defenses of Section 4920 only one of form.

In Camp Bros. & Co. v. Portable etc. Co., 251 Fed. Rep. 603, (C. C. A. 7), the court considered a pending application as relevant on the issue of prior invention only by virtue of the claims It is true that the case does not lay down the rule in general terms, but there seems to be no doubt that it meant to follow Sundh v. Interborough etc. Co., supra.

In Willard v. Union Tool Co. 253 Fed. Rep. 48 (C. C. A. 9), the patent in suit was later in application than another patent to one Griffin. Griffin's patent had claims like those in suit except for one element. The resulting divergence did not in the court's opinion prevent Griffin from being the earlier inventor because he "had the conception of all the claims," as might be gathered from reading the disclosure as a whole. Hence the decision turned upon priority by [fol. 766] proof dehors the applications. Clearly the claims were not treated as the sole measure of the "invention".

In the sixth circuit it has been established by an unusual number of cases that copending applications count precisely as though they were part of the prior art. The comparison on the issue of prior invention is of the disclosures. This has been the rule for over thirty years as established in the following cases. Cochren v. Zimmermann, 53 Fed. Rep. 801, Drewson v. Hartje Paper Manufacturing Co., 131 Fed. Rep. 734, Electric etc. Co. v. Westinghouse etc. Co., 171 Fed. Rep. 83, Lemley v. Dobson-Evans Co., 243 Fed. Rep. 391, Jackson Co. v. Adler, 243 Fed. Rep. 386, Twentieth Century Co. v. Loew Co., 243 Fed. Rep. 373, Diamond Power Specialty Co. v. Merz Capsule Co., 276 Fed. Rep. 274, Concrete Appliances Co. v. Meinken, 262 Fed. Rep. 958, Gen. Electric Co. v. Cooper Hewitt Co., 249 Fed. Rep. 61.

Finally in Westinghouse etc. Co. v. Metropolitan etc. Co., 290 Fed. Rep. 681, (C. C. A. 2), it was held that new claims introduced into an application while in the Patent Office did not require any supplemental oath, if the disclosure was unaltered in essentials This was on the theory that "what any patentee has invented is theoretically what he discloses and the disclosure is the specification. A claim is a definition of that which has been described in the specification". Certainly this is inconsistent with the notion that the "invention" resides solely in the claims.

[fol. 767] Any conclusion amid the confusion of the cases is very doubtful. It appears to me that on the one hand the disclosure qua description is not the "invention", and that it certainly cannot be enough that the claims of the patent in suit read upon the description of a copending application. On the other hand it would seem that it is too extreme a doctrine to say that the "inventions" are necessarily different because they contain claims made up of different elements. As in so many other instances the ultimate question is one of degree, that is, how far removed are the purposes of the earlier inventor from those of the patentee. If they contain a combination similar in purpose; if, to use a vague phrase, they contain the fun-

damental idea of the patent in suit, it is not enough to save the latter that the claims are not the same. This is the rule in cases of double patenting and of reissues. No doubt it causes much litigation and is not as satisfactory as a nicely exact rule. But in such matters the law seeks even at the expense of certainty to follow the cruder standards of common-sense.

In considering Reich and Clifford I think that I must therefore go beyond a bare comparison of the claims, but still I cannot treat them as if they were in the prior art. I must see whether within their patents there can be found any purpose to contribute to the art the combination of an interchangeable single tip containing three ducts and a mixing chamber and available for use in a single head. That [fol. 768] must appear as one of the objects of the invention in the sense that it would have supported a reissue and would not have allowed a second patent. Especially in this aspect it is relevant to consider the inducements of the patent where the patentee sets out in general terms what he considers to be the benefits which he contributes to the art. So considered neither patent is for the same "invention" as Whitford's.

Reich states the objects of his invention on page 1, lines 9-47 of his disclosure and nowhere suggests anything like Whitford's. They are to prevent "back-flashes", to provide a combined blow-pipe and cutter, to make the nozzle movable so as to reach inaccessible spots and to cool the nozzle. The claims follow this declaration of his purposes. All the claims except two and three are for a combination containing the "back-flash check valve". Claims six and seven have, it is true, a "mixing passage" in the tip, but do not contain any cutting jet. Claim two contains the element of an angular rotatable tip and no cutting jet. Claim three is for a double clamping means and would not read on the disclosure of the patent in suit. Reich nowhere showed any purpose to select the combination of elements which Whitford claimed.

Clifford's objects (page 1, lines 13-28), were to allow the angle of the tip and head to be changed, to improve the mixture of his gases by a vortex movement, to separate if need be the cutting from the [fol. 769] welding tip, and to provide against "backflashes". His claims bear out these purposes. Claims one and seven were for pivotal changes between the handle and what he called the "burner-support". There was no requirement that the mixing chamber should be in the tip. Claims two and three were for the pivotal mounting combined with removability for the cutting tip which was a separate piece. Claim four was for a peculiar mounting of the two tips. Claim five was for the mixing plug and claim six for an asbestos or gauze packing, (page 2, lines 85-88), designed to prevent "back-flashes": In none of these any more than in Reich's application is any intimation to be found of what Whitford claimed.

Therefore, I find that neither of these was a prior "inventor" to Whitford. There is no injustice in this result. While they might have added such claims to their application they did not. To perceive the utility of Whitford's combinations and to set them forth would have benefited the art, which without such cases must reach

them by the aid of its own ingenuity. So long as the disclosure was not for all purposes dedicated to the public there is no reason why another who independently observes beneficient combinations should not be entitled to profit by his ingenuity. He has contributed something which the public might or might not have learned alone; never, except by some independent exercise of an originality which was apparently outside the compass of the routine artisan.
[fol. 770] The plaintiff may take a decree upon the claims of this patent.

Patent 880,099

This patent is for a welding torch and discloses a unitary tip in which the gases are mixed, in part by means of the sucking action of the oxygen which is assumed to be under a higher pressure than the combustible. The claims in suit, two and three, each speak of the purpose for which the tip is to be used. Claim two says that the patent is for "an apparatus for heating and welding metals by means of gases having separate conduits for the two kinds of gases under different degrees of pressure". Claim three has in substance the same language. It is probable, although not certain, that the defendant in practise uses its torch with pressures as nearly as possible equal. However, I cannot think that question relevant. The claims are for a tip made as the disclosure described and containing the features selected. If it may be used for gases at equal pressures it is no less an infringement though the patentee assumed that the pressures would be unequal. Infringement does not depend upon the way the torch is used and seems to me to have been shown.

The defendant's best reference against this patent is the French patent 363,119 to Eugene Odam published July 21, 1906, and therefore a part of the prior art when the patent in suit was applied for. [fol. 771] This was for a welding torch — is to be used for the same purposes as the patent. It contained a central duct for the oxygen jet and side ducts for the combustible to be admitted through oblique passages, k. k., from which the combustible was to be sucked as by an injector, just as was shown in figure two of the patent in suit (page 2, lines 4-6). "This jet of air or oxygen aspirates (produit d'aspiration) the combustible gas by the ducts k. k.". Thus the operation was the same and the purpose was the same, because at the outset of his specifications Odam says that his invention "has for its object a mounting for a tip especially made so as to be able to receive interchangeable tips capable of functioning with different combustible gases, whether or not under pressure."

The plaintiff objects to the sufficiency of this disclosure because the seal would be imperfect, thus allowing the mixture of gases before they reached the passage, h, and because in use the conduits, k. k., would change in bore and thus disturb the proper proportion between oxygen and acetylene. Properly to consider these objections I must take up the specifications and diagrams in some detail. It is in the first place clear that Odam presupposed a gas seal. Thus on lines 20-27 of page one, the patent reads: "The cylinder, A., at c., shows a threaded part, on which a packing ring, C., is designed to be screwed

which serves to hold the tip, when inserted into the cylinder, A, in- [fol. 772] suring a suitable hermetic seal, (hermeticite) between the body of the tip and the body A, of the cylinder." It may be argued that this seal was intended only to prevent the escape of the combustible along the side of the tip. Perhaps it was, yet the inevitable effect of screwing down the packing-ring, C., would be to transfer the pressure to the shoulder, N., of the tip through an unlettered ring and thence to the end of the tip where it abuts upon the shoulder, d, at the rear of the cylinder. If properly machined this would make the same gas seal as the defendant's tip and by just the same means.

It appears illegitimate to criticize this part of the disclosure on the ground that the seal might be imperfect. Rather it must be supposed that the apparatus would be made by competent persons who understood the necessary conditions of good workmanship. The packing ring must be supposed to insure a suitable seal, where a seal was necessary. It was preeminently so at the end of the tip, and even if the intention was also to prevent leaks of the combustible, that should not detract from its primary effect. Indeed, it was apparently on the washer O, between the shoulder, m, and the unlettered ring that Odam counted (page 1, lines 55-57), to prevent the escape of the combustible.

As to the possible disturbance of the combustible ducts, k.k., the argument is that by screwing and unscrewing the plug, F., which is [fol. 773] inserted in the threaded recess, e., the plug would itself turn in the tip, E., and change the bore of the ducts. But, the patentee himself says (page 1, lines 50-54), that the threading of the extended part of the plug, F, and its insertion into the threaded recess, e, is not an essential part of his disclosure. I should have thought it so, had he not said it, but his language is clear on that detail. Thus he says in the passage in question: "Moreover, resort may be had to any other means of mounting thus to fix the tip at the end of the cylinder, A, of the mounting." The word used is "fixer" and is translated "attach," "secure" and "fix." I have chosen "fix," because I think the purpose was to carry the duct, p., to the open chamber in front of the nut, D. If the shoulder, d., had extended across the whole end of the mounting it would be difficult to insure the registry of the duct, p, with some corresponding duct in the shoulder. The extended end of the plug, F, at once insured the alignment of the tip as a whole, and avoided any danger as to registry. But it was in no sense necessary that it should be threaded and the patentee said so.

If therefore it proved in practise troublesome to thread both the plug and the recess. e, it seems to me the most obvious detail to omit that feature. The seal at the shoulder, d, being as adequate as the defendant's, I cannot see why Odam was not a complete anticipation if the defendant's tip be an infringement. Odam's summary at the close, the equivalent I suppose of our "claim," is a complete descrip- [fol. 774] tion of the patent in suit. The phrase, "un chalumeau qui est maintenu at assujetti par un presseetoupe," is variously translated, "secured," "retained" and "held and made tight." The last is clearly

the right translation, since it alone gives any effect to "assujetti," a stronger word than "secured," and in colloquial French the equivalent of our "subjected."

Therefore, I find patent 880,099 invalid for anticipation. The plaintiff may take a decree upon the first two patents; the defendant upon the last. There will be no costs.

Learned Hand, D. J.

[fol. 775] IN UNITED STATES DISTRICT COURT

[Title omitted]

INTERLOCUTORY DECREE—Filed Feb. 9, 1924

This cause came on to be further heard at this term of Court, and was argued by counsel, and thereupon, upon consideration thereof, it was ordered, adjudged and decreed as follows:

1. That the Letters Patent in suit No. 874,666, granted December [fol. 776] 24, 1907, to Emile Gauthier and Camille Rodrigues-Ely for Apparatus for Perforating and Cutting Metals, and subsequently assigned to plaintiff, are good and valid in law as to claim 1 thereof; that the Letters Patent in suit No. 1,028,410 granted June 4, 1912, to John Walter Whitford, for Blow Pipe, and subsequently assigned to plaintiff, are good and valid in law as to claims 3, 6 and 7 thereof; and that the Letters Patent in suit No. 880,099, granted February 25, 1908, to Camille Rodrigues-Ely and Emile Gauthier for heating and welding Metals and subsequently assigned to plaintiff are invalid as to claims 2 and 3 thereof.

2. That Emile Gauthier and Camille Rodrigues-Ely were the first, true, original and joint inventors of the invention described in said letters patent No. 874,666 and claimed in claim 1 thereof; and that John Walter Whitford was the first, true, original and sole inventor of the invention described in said Letters Patent No. 1,028,410 and claimed in claims 3, 6 and 7 thereof.

3. That the defendant, The Alexander Milburn Company has infringed upon claim 1 of said Letters Patent No. 874,666 and upon claims 3, 6 and 7 of said Letters Patent No. 1,028,410.

4. That a permanent injunction issue out of and under the seal of this Court, directed to the said defendant, The Alexander Milburn [fol. 777] Company, strictly enjoining it and its officers, servants, agents, workmen and employees from making, or causing to be made, using, or causing to be used, selling or causing to be sold, or advertising, or causing to be advertised for sale any torches, tips for torches or other apparatus containing or embodying or involving the use of the inventions or discoveries covered by said Letters Patent Nos. 874,666 and 1,028,410 or either of them, or any material or substantial part

thereof, and from infringing upon said Letters Patent or either of them in any way whatsoever.

5. That the plaintiff, Davis-Bournonville Company, recover of the defendant, The Alexander Milburn Company, the profits, gains and advantages which the defendant has derived, received, earned or made by reason of its infringement of said Letters Patent Nos. 874,666 and 1,028,410, together with any and all damages the plaintiff has sustained by reason of its said infringement; and this cause is hereby referred to William Parkin, Esq., as a Master of this Court to take, state and report an account of the said profits and damages under and in accordance with this decree; and the said defendant and its officers, agents and employees are directed and required to attend before said Master from time to time as required and to produce before him such apparatus, books, documents, and papers and to submit to such oral examination or otherwise as the said Master may [fols. 778-785] require in connection with said accounting and the assessing of said damages.

Learned Hand, United States District Judge.

[File endorsement omitted.]

[fol. 786] IN UNITED STATES DISTRICT COURT

[Title omitted]

DEFENDANT'S PETITION FOR AND ORDER ALLOWING APPEAL—Feb. 15, 1924

To the Honorable the District Judges of the United States in and for the Southern District of New York:

The above named defendant, The Alexander Milburn Company, conceiving itself aggrieved by the Interlocutory Decree made and entered by this Court on the 9th day of February, 1924, in the above entitled cause, wherein it was ordered that permanent injunction be issued out of and under the seal of this Court directed to this defendant, The Alexander Milburn Company, strictly enjoining it from making, using or selling torches, tips for torches or other apparatus containing, embodying or involving the use or the alleged inventions or discoveries covered by letters patent Nos. 874,666 and 1,028,410 or either of them, or any material or substantial part thereof, does hereby appeal from so much of said decree [fol. 787] as relates to said letters patent to the United States Circuit Court of Appeals for the Second Circuit, for reasons specified in the assignment of errors which is filed herewith, and it prays that its appeal in said cause may be allowed and a citation granted, directed to the above named plaintiff, Davis-Bournonville Company, commanding it to appear before said United States Circuit Court

of Appeals for the Second Circuit to do and receive what may appertain to justice to be done in the premises, and that a transcript of the record, proceedings and papers and of the opinion of the Court and the exhibits upon which the said decree was entered, may be duly authenticated by the Clerk of the Court, and may be transmitted to the said United States Circuit Court of Appeals for the Second Circuit, and your petitioner prays for all general and equitable relief thereon.

The Alexander Milburn Company, by A. Parker Smith, Solicitor & of Counsel for Defendant.

36 West 44th Street, New York City.

[fol. 788] The foregoing Petition for Appeal is allowed this 19th day of February, 1924.

Henry W. Goddard, U. S. District Judge.

Service of copies of the foregoing petition for appeal and Assignment of Errors therein referred to is hereby admitted this 18th day of February, 1924.

Pennie, Davis, Marvin & Edmonds, Solicitors for Plaintiff, Davis-Bournonville Company.

Cross appeals being in preparation, each party waives the filing of any cost bond in the other's appeal.

A. Parker-Smith, Solicitor for Defendant. Pennie, Davis, Marvin & Edmonds, Solicitors for Plaintiff.

New York, Feb. 18, 1924.

[fol. 789] IN UNITED STATES DISTRICT COURT

[Title omitted]

DEFENDANT'S ASSIGNMENT OF ERRORS—Filed Feb. 18, 1924

Now comes the Alexander Milburn Company, defendant in the above entitled cause and says that in the record and proceedings therein there is manifest error and that the District Court of the United States for the Southern District of New York erred in this, to wit:

1. In entering the decree entered in said cause upon the 9th day of February 1924.

2. In decreeing any relief to the plaintiff against the defendant, The Alexander Milburn Company, and in not dismissing the Bill of Complaint.

3. In decreeing that Letter Patent No. 874,666 granted December 24, 1907 to Emile Gauthier and Camille Rodrigues-Ely for Ap-

paratus for Perforating and Cutting Metals are good and valid in law as to claim 1 thereof.

[fol. 790] 4. In not decreeing that said Letters Patent No. 874,666 are invalid and void as to said claim 1 thereof.

5. In decreeing that Emile Gauthier and Camille Rodrigues-Ely were the first, true, original and joint inventors of the invention described in said Letters Patent No. 874,666 and claimed in claim 1 thereof.

6. In decreeing that the defendants, The Alexander Milburn Company has infringed upon claim 1 of said Letters Patent No. 874,666.

7. In decreeing that Letters Patent No. 1,028,410 granted June 4, 1912 to John Walter Whitford for Blow Pipe, and subsequently assigned to plaintiff, are good and valid in law as to claims 3, 6 and 7 thereof, or as to any of said claims.

8. In not decreeing that said Letters Patent No. 1,028,410 are invalid and void as to claims 3, 6 and 7 thereof, and as to each of said claims.

9. In decreeing that John Walter Whitford was the first, true, original and sole inventor of the invention described in said Letters Patent No. 1,028,410 and claimed in claims 3, 6 and 7 thereof.

10. In decreeing that the defendant, The Alexander Milburn [fol. 791] Company, has infringed upon claims 3, 6 and 7 of said Letters Patent No. 1,028,410 or any of said claims.

11. In decreeing that a permanent injunction issue out of and under the seal of this Court, directed to said defendant, The Alexander Milburn Company, strictly enjoining it and its officers and servants, agents, workmen and employees from making, or causing to be made, using, or causing to be used, selling or causing to be sold, or advertising, or causing to be advertised for sale any torches, tips for torches or other apparatus containing or embodying or involving the use of the inventions or discoveries covered by said Letters Patent Nos. 874,666 and 1,028,410 or either of them, or any material or substantial part thereof, and from infringing upon said Letters Patent or either of them in any way whatsoever.

12. In decreeing that the plaintiff Davis-Bournonville Company recover of the defendant, The Alexander Milburn Company, the profits, gains and advantages which the defendant has derived, received, earned or made by reason of its infringement of said Letters Patent 874,666 and 1,028,410, together with any and all damages the plaintiff has sustained by reason of said infringement.

13. In decreeing that this cause be referred to William Parkin, Esq., as a Master of this Court to take, state and report on account of the said profits and damages under and in accordance with this [fol. 792] decree; and that the said defendant and its officers, agents

and employees are directed and required to attend before said Master from time to time as required and to produce before him such apparatus, books, documents and papers, and to submit to such an oral examination or otherwise as the said Master may require in connection with said accounting and assessing of said damages.

14. In denying defendant's motion for leave to withdraw the Stipulation, Plaintiff's Exhibit No. 1, in so far as the same relates to the title of the plaintiff to the patents in suit as set forth in paragraph 2 thereof, and for leave to file a supplemental answer setting forth the transfer of all of plaintiff's title to the patents in suit subsequent to the filing of defendant's original answer herein and before the trial of the case.

15. In not dismissing plaintiff's bill of complaint of its own motion upon learning that the plaintiff has divested itself of all title to the patents in suit after defendant filed its original answer herein and before the trial of the case.

16. In not holding and decreeing the above entitled cause abated and suspended upon the suggestion to the Court that the plaintiff had divested itself of all title to the patents in suit pendente lite and thereupon suspending all further proceedings therein, and setting aside [fol. 793] all orders and stipulations made and all proceedings had therein after the date of such transfer of title from plaintiff.

Wherefore defendant prays that the said Interlocutory Decree be reversed and that the United States District Court for theSouthern District of New York be directed to enter an order that said decree and all proceedings thereunder be set aside and plaintiff's Bill of Complaint herein dismissed with costs to this defendant.

The Alexander Milburn Company, by A. Parker Smith,
Solicitor & of Counsel for Defendant.
36 West 44th Street, New York City.

[fol. 794] IN UNITED STATES DISTRICT COURT

[Title omitted]

DEFENDANT'S CITATION

UNITED STATES OF AMERICA,
Second Judicial Circuit, ss:

By the Honorable Learned Hand, United States District Judge for the Southern District of New York, in the Second Circuit, to the Davis-Bournonville Company:

You are hereby cited and admonished to be and appear before the United States Circuit Court of Appeals for the Second Circuit within thirty days from the date of this citation, pursuant to an appeal duly

allowed and filed in the Clerk's Office of the United States District Court for the Southern District of New York wherein the Alexander Milburn Company is the defendant-appellant and you are plaintiff-appellee, to show cause, if any there be, why the order entered by in- [fols. 795-883] terlocutory decree in said cause February 9th, 1924, as in said appeal stated, should not be reversed and corrected and why speedy justice should not be done to the parties in that behalf.

Given under my hand at the City of New York, in the Southern District of New York, on the 19th day of February, 1924.

(Signed) Henry W. Goddard, U. S. District Judge.

Service of a copy of the foregoing citation admitted this 20th day of February, 1924.

Pennie, Davis, Marvin & Edmonds, Solicitors for Plaintiff.

[fol. 884] In United States Circuit Court of Appeals for the Second Circuit

Before Hon. Charles M. Hough, Hon. Martin T. Manton, Hon. Julius M. Mayer, Circuit Judges

Davis-Bournonville Company, Plaintiff-Appellant,

vs.

The Alexander Milburn Company, Defendant-Appellant.

Cross-appeals From Decree in Equity Entered in the District Court for the Southern District of New York

Opinion

Plaintiff, as owner, sues on three patents: 874,666, dated December 24, 1907, and hereinafter called the "first cutting patent"; 1,028,410, dated June 4, 1912, and hereinafter called the "second cutting patent"; 880,099, dated February 25, 1908, and hereinafter called the "welding patent."

[fol. 885] All the patents relate to the art of heating and/or welding metals by means of a mixture of gases under pressure,—a subject described very generally with particular reference to the cutting of metal in Linde, etc., Co. vs. Morse, 246 Fed., 834 (837). The first cutting patent is described as an "apparatus for perforating and cutting metals," and the first claim reads thus:

"In an apparatus for cutting metals by means of a heating jet, and an oxidizing jet, the mouthpiece having an oxidizing gas current outlet and several combustible gas outlet openings arranged and adapted to discharge combustible gas in streams substantially parallel to the stream of oxidizing gas, substantially as and for the purpose set forth."

The second cutting patent is described merely as a "blow-pipe," and the third claim is as follows:

"Apparatus for cutting metals by means of gases, comprising a socketed head and a unitary removable and replaceable tip, said head having three separate conduits for gases to form a combustible mixture and oxygen for cutting, respectively, and said unitary tip being provided therein with a cutting jet passage having a delivery [fol. 886] orifice at the forward part of the tip and communicating at the rear part of the tip with the corresponding conduit in the head and with a heating jet passage having a delivery orifice at the forward part of the tip and separate inlets in the rear part of the unitary tip communicating with the corresponding conduits in the head, the head and tip being provided at the joint between the two with co-operating sealing seats which prevent leakage and all improper mingling of the gases."

The welding patent, though described as concerned with "heating and welding metals," is not for a process but for a mechanical device, and the second claim is as follows:

"An apparatus for heating and welding metals by means of gases having separate conduits for the two kinds of gases under different degrees of pressure, an interposed removable part constituting a nozzle having a mixing chamber and formed at one end with radial channels constituting ports for the passage of gas under low pressure to the mixing chamber and a longitudinal channel for the passage of gas under high pressure to the mixing chamber."

The Court below held that Claim 1 of the first cutting patent, and Claims 3, 6 and 7 of the second cutting patent, were valid and in- [fol. 887] fringed, but declared Claims 2 and 3 of the welding patent (the only ones sued on) invalid for anticipation. From interlocutory decree accordingly both parties appealed.

Dean S. Edmonds, J. F. Brandenburg, E. H. Merchant, for plaintiff-appellant;

A. Parker-Smith and James A. Watson, for defendant-appellant;

Thomas Ewing filed a brief as amicus curiae.

HOUGH, C. J.:

The case was tried below under a quite usual stipulation of parties with regard to plaintiff's title to the patents in suit. After decision rendered but before decree entered, defendant, having discovered some asserted defect in plaintiff's title, moved to be relieved from its stipulation and in effect to re-try the cause. This motion was denied, and defendant assigns for error the Court's refusal to permit withdrawal from the stipulation and filing a supplemental answer.

It is somewhat difficult to perceive defendant's right to urge this point. We hear this appeal solely by virtue of the statute (Jud. Cod., Sec. 129). Each party's right to appeal arises from the granting or refusing of an injunction. The decree appealed from makes no reference to the matter of this stipulation.

An appeal from a final decree brings up all interlocutory matters, [fol. 888] but an appeal from an interlocutory decree brings up only those matters covered by the statute allowing an appeal unknown to the historic course of equity. The defendant's technical right to urge this point from such a decree and one that says nothing at all about this stipulation, is not perceived. (Harding vs. Corn Products, 168 Fed., 658.)

But the real point in controversy is plain enough from the papers submitted. Therefore, although we hold the point not technically presentable, we express opinion on the merits, as follows, viz: Granting or refusing leave to retire from a stipulation is a matter of discretion, and no abuse of discretion is shown herein. On the contrary, a most equitable method of curing the difficulty was pointed out by the Trial Judge and defendant refused to accept the suggestion. It insisted as a right upon that which was always a matter of grace. There is no substantial merit in this attempted appeal entirely apart from its technical imperfection.

As to the welding and the first cutting patents it is unnecessary to expand the findings of fact made below by L. Hand, J.

Clumsily, perhaps, and in a mechanical form that failed to win recognition, the Odam French patent (363119 of 1906) presents every patentable attribute or element contained in the claims of the welding patent in suit. It may be, and quite probably is true, that Odam's tool could not be said to have tips removable and replaceable by the user, i. e., the mere workman, to meet changing con- [fol. 889] ditions on the job, and to provide welding flames of different sizes; but the claims in suit are not drawn to cover merely a specially convenient tool, but to get as near as the law permits to covering a principle of operation; and everything essential to reducing that principle to practice Odam reveals. That his reduction was not the best one, nor a specially successful one is immaterial in suit on such claims as the 2d and 3d of No. 880,099. We agree with the Court below in its exposition of the anticipation found in Odam's published patent.

As to the first cutting patent, there is nothing to add to the opinion below; no question of law is raised, and the decree as to No. 874,666 is correct.

That the second cutting patent is infringed if valid, and is valid unless defeated by the plea that Whitford was not the "original and first inventor or discoverer of any material and substantial part of the thing patented."—is also a point on which nothing need be added to Judge Hand's opinion. The substantial question on this appeal is raised by the following facts concerning Whitford No. 1,028,410.

Whitford filed application March 4, 1911, and received patent June 4, 1912. One Clifford filed application January 31, 1911, and received patent February 6, 1912, for a "Torch" (No. 1,016,613). Clifford sought and obtained protection for an invention quite distinct from that of Whitford, and his claims do not touch or affect those of Whitford; but in the disclosure of his specification

[fol. 890] he shows a structure which plaintiff admits,—"does comply with the requirements of the Whitford patent."

The argument for defendant based on Clifford's patent is also rested on two other co-pending applications; but as there is considerable doubt as to the similarity of subject matter or the operative capacity of these other disclosures we state the question as raised by Clifford alone.

That question is this,—assume two co-pending applications for patent, both ultimately granted; each discloses certain substantially identical matter, which matter is not made the basis of claims in, and is not covered by the claims of the application first filed, but is the basis of and is covered by the claims of the later application;—under such circumstances can the patent of the earlier filing-date be used to invalidate the other patent?

The conditions on which a patent may be granted are set forth in R. S. 4886, and the usual defenses to a patent once granted in R. S. 4920. The enumeration of neither section is exclusive; the granting section recognizes that there must be "other due proceedings had,"—not described even by reference; and the defense section does not forbid objection to legal or equitable relief if such objection is inherent in the nature of patent rights or grows out of the fact that they are property,—like other incorporeal hereditaments; of this the list of possible defenses set forth in Walker on Patents is sufficient proof. But no one can anticipate all possible [fol. 891] defenses. The 5th edition of Mr. Walker's book declared in 1917 (Sec. 106) that "no abandonment of an invention after the issue of letters patent has ever been judicially decided to exist in the United States," yet contemporaneously Macbeth vs. General, etc., Co., 246 Fed., 695, was under consideration, which does not in terms, but does in effect, hold that very thing.

If, therefore, without regard to any formal category of defenses one considers the question whether the statements contained in a specification, but not deemed of sufficient importance by the applicant to form the basis for a claim, should be regarded in equity (i. e., justice) as preventing another person from making the same statement and grounding a claim upon it before the earlier statement has become public,—the answer is to us, plainly in the negative.

There seems no material difference between the attitude of one who files application for a patent and never presses it, and one who does the same thing and never uses a portion of his disclosure. It was held in the Corn-planter Patent, 23 Wall., 181, that a mere application, subsequently abandoned or withdrawn, was no bar to a subsequent patent therefor to another. As Bradley, J., remarked (p. 211), "It can only have a bearing on the question of prior invention or discovery, * * * the mere fact of having unsuccessfully applied for a patent therefor cannot take the case out of the category of unsuccessful experiments."

[fol. 892] We have been favored in this litigation by the brief as amicus of Mr. Ewing, formerly Commissioner of Patents, and are

advised that for many years it has not been the Patent Office practice to search for references under abandoned applications. They are treated as having no bearing upon the patentability of matter subsequently presented by others. This settled practice of an "executive branch of the government" in harmony with Judge Bradley's remarks (Bates vs. Sulzberger, 157 U. S., 1, at p. 34) may well justify the holding now made, that an application for a patent either abandoned or withdrawn has per se no influence at all in ascertaining the state of the prior art.

But in the present instance Clifford pursued his application, and presumably obtained the claims he wanted, none of which rests upon the matter which this defendant wishes to use. When Clifford's patent was published, so much of his disclosure as was not covered by a claim was dedicated or surrendered to the public. (Walker, 5th ed., p. 222, citing Jewell Filter vs. Jackson, 140 Fed., 340; and see Brammer Co. vs. Witte, 159 Fed., 726 (728); McClain vs. Ortmayer, 141 U. S., 419 (424); Ball, etc., Co. vs. Sanford Co., C. C. A. 2, Feb. 18, 1924.) But such dedication or "disclaimer" (as it is called by Sanborn, J., in the case first cited), did not and could not take place until the public could become acquainted with what was given to them; and that knowledge could only be gained by the publication of the patent.

[fol. 893] Thus the best reason, or a logical reason, for holding as we do, that no part of a pending application for a patent can be considered as a part of the prior art, is that that phrase "prior art" means something that a man skilled therein may by reasonable, or perhaps unreasonable diligence discover; and he cannot discover that which is contained in a confidential communication to the Commissioner without coming perilously near, if not committing, a criminal offense, —something never presumed. This point has been emphasized in this circuit in Mergenthaler vs. International, 229 Fed., 168 (172) (on appeal) and Leonard vs. Maxwell, 288 Fed., 62 ((66); and appeals did not modify the holdings referred to (229 Fed., 407; 252 Fed., 584).

Turning now from general considerations to the statutory defenses of R. S. 4920, the third (that the device in suit has been patented or described in some printed publication prior to the patentee's invention or discovery), and the fourth (that the patentee was not the original and first inventor or discoverer—the defense pleaded in this case),—have been discussed in this circuit in Sundh, etc., Co. vs. Interboro, 198 Fed., 94 (96-97). To the rule there stated, and usually formulated somewhat loosely, that copending applications are not prior art as against each other, this circuit has consistently adhered. Another formulation is found in Walker, 5th ed., p. 60. The facts of this case (under the case cited) do not permit the use of the third defense.

[fol. 894] If Clifford had not only described but claimed the matter now sought to be used by defendant, the Sundh case, supra (p. 67) is clear in holding that in the absence of other evidence, and because an application is a constructive reduction to practice, Clifford

would have been the original and first inventor or discoverer because he filed the first application; and the fourth defense would succeed.

Thus the question is narrowed to this: Does the phrase "first inventor" of the fourth defense, signify one who describes patentable matter or one who both describes and claims it?

An analogy may be taken from R. S. 4887, providing that one may receive a patent for his invention even though it had "been first patented * * * in a foreign country" except as provided in the act. What is patented in the foreign country is the invention, yet it has long been held that since what may prevent the obtaining of an American patent is the existence of a foreign patent, the two patents must be identical, which means that the "inventions actually claimed" must be identical. For "it is not sufficient that the foreign patent may disclose the invention of the later United States patent where it is not claimed." (Westinghouse, etc., Co. vs. Stanley, 138 Fed. 823; General Electric vs. Alexander, 280 Fed., 852).

On reason it seems difficult to imagine that anything can rise to the dignity of invention which the discoverer or deviser thereof does not see fit to define by a claim. The inventor referred to in the [fol. 895] granting section (4886) and the inventor referred to in the fourth defense of 4920 must be the same person or kind of person. He is defined in 4886 as one who has discovered something new and useful "not known and used by others in this country" before his discovery. And "not patented or described in any printed publication," etc., before said time.

Apply that language to the present case; did Clifford know in January, 1911, what Whitford knew in the following March? Looking merely at the two applications Clifford, of course, could not have known except from the development of his own thought, for the public, as has been shown, could not know anything about it. Whatever else invention may be, it is an idea, and the quest for its origin is a search for the whole idea and not a fraction of it. There can be no conception of invention except in the complete performance of the mental portion of the inventive act (DeLaski vs. United States Tire Co., 235 Fed., 290). Can it now be said that, by the mere statement of matter which he did not think to use, Clifford had rounded out and completed the mental portion of his inventive act?

We think it cannot. Clifford may be said to have observed certain phenomena, but he certainly drew from them no conclusion that such phenomena contained patentable matter.

The question may be thus put,—is mere disclosure (confidentially made to the Commissioner of Patents) and no more per se sufficient [fol. 896] evidence of invention? We think that it is not, for the reason that in the absence of an appropriate claim there is no evidence of the perfection of the mental concept which constitutes the intellectual part of invention.

These thoughts were categorically formulated in Farmers' Handy Wagon Co. vs. Beaver, 236 Fed.. 731. In this case, completely like the present one on this point, Kohlsaat, J., held that the patent of earlier application was to be considered "for whatever they disclose.

This should we hold be limited to such matters as are included in their several claims, unaided by their specifications or by extrinsic evidence except where necessary to elucidate and make the same clear."

To this is opposed Lemley vs. Dobson, etc., Co., 243 Fed., 391 (6th Circuit), which holds broadly, that a patent the filing date of which antedates the filing date of the patent in suit is "prima facie anticipatory" (p. 395). With this statement of rule we must disagree, if for no other reason than that the word "anticipatory" is far too broad.

A patent formally granted may be invalidated or rendered practically worthless for many reasons, and "anticipation" is a technical name for one of those reasons. The valuable brief of Mr. Ewing as amicus, in our opinion, correctly states that when anticipation is proven the consideration of the patent fails. There can, however, be no anticipation unless constructively at least the public was timely [fol. 897] in possession of that which the patentee sought to appropriate to himself. But in the present instance the public as above shown knew nothing at all about what either Clifford or Whitford had said to the Commissioner, when Whitford filed his application. Consequently Clifford could not possibly anticipate Whitford.

Priority of invention does not mean the same thing as anticipation in invention. The logical reason for sustaining priority of invention is to prevent double patenting; and double patenting is forbidden, not because that phrase can be found in any statute, but because two monopolies of the same entity are inherently repugnant to the essential nature of the patent system.

Thus if Cifford had not only disclosed but claimed, something that Whitford later also disclosed and claimed, the former under the Sundh case (supra) would plainly have been the first inventor; not because he disclosed the something, but because he was entitled to the first patent, i. e., because double patenting must be prevented.

For the reasons now set forth we hold that a "first inventor" within the meaning of that phrase as used in the fourth defense of 4920 must be a person who perfects his invention; no invention can be intellectually perfected unless it is thought out and concluded, and the only evidence of such perfected invention ordinarily derivable from any patent is a union of disclosure and claim. Evidence of disclosure only (all we have here) is not enough; and be- [fol. 898] fore publication disclosure alone does not evidence anticipation.

Thus in a sense, the question becomes one of evidence; and it is, we think, because evidence of invention is wanted for so many purposes, that the use of the word is necessarily attended with peril of inaccuracy. A quite natural peril, considering that the word cannot be effectively defined (McClain vs. Ortmayer, supra, p. 427).

Thus evidence of invention is required upon allegations of prior use, where claims and/or specifications exist only on one side of the contest. Evidence of invention is also wanted in interferences, and above all on questions of infringement, including all matters of patent scope and interpretation. It is in the multiplication of pur-

poses for which evidence of invention is desired that there lies the explanation of the varying ways in which evidence of invention has been found.

Thus it being elementary that a patent is enforced according to its claims, if for no other reason than that what is sued on is a claim; the most frequent question is: What do the claims mean? Of course, they mean to define an invention, and it is often said that the invention is determined by the specification, that is, the meaning of the claims is delimited, i. e., determined, by the specification. (Hall vs. Ellaman, 213 Fed., 341; Westinghouse vs. Metropolitan, 290 Fed., 661.) What is wanted is to get at the meaning of the whole document, claims and all, and the method of so doing has never [fol. 899] been better stated than by Sanborn, J., in Jewell, etc., Co. vs. Jackson, 140 Fed., 340 (344), thus:

"The true rule is that the specification of a patent, which forms a part of the same application as its claims, must be read and construed with them, not for the purpose of expanding, nor for the purpose of limiting or contracting the latter, but for the purpose of ascertaining their true meaning and the actual intention of the parties when they (the claims) were made and allowed."

A claim may be evidence standing alone; and so may a disclosure standing alone, but ordinarily they are united, and probably it is true that in most instances of use the disclosure is more persuasive evidence than the claim; but we think no case can be found holding on consideration that a disclosure without a claim is complete, competent and fully persuasive evidence of perfected invention.

Result is that we disagree with the ruling of Lemley vs. Dobson, supra, and find ourselves in accord with the categorical statement above quoted from Farmers etc. Co. vs. Beaver, supra; holding in conclusion that a patent in evidence under the fourth defense speaks only from its date of grant, as to all matters disclosed but not claimed therein.

Decree affirmed; no costs.

[fol. 900] In United States Circuit Court of Appeals

[Title omitted]

Appeal from the District Court of the United States for the Southern District of New York

Order for Mandate—Filed June 2, 1924

This cause came on to be heard on the transcript of record from the District Court of the United States, for the Southern District of New York, and was argued by counsel.

[fol. 901] On consideration whereof, it is now hereby ordered, adjudged and decreed that the decree of said District Court be and it hereby is affirmed, without costs.

It is further ordered that a Mandate issue to the said District Court in accordance with this decree.

C. M. H., J. M. M.

[File endorsement omitted.]

[fol. 902] In United States Circuit Court of Appeals

Clerk's Certificate

I, William Parkin, Clerk of the United States Circuit Court of Appeals for the Second Circuit, do hereby Certify that the foregoing pages, numbered from 1 to 901 inclusive, contain a true and complete transcript of the record and proceedings had in said Court, in the case of Davis-Bournonville Company, Plaintiff-Appellant, against Alexander-Milburn Company, Defendant-Appellant, as the same remain of record and on file in my office.

In testimony whereof, I have caused the seal of the said Court to be hereunto affixed, at the City of New York, in the Southern District of New York, in the Second Circuit, this 17th day of June in the year of our Lord One Thousand Nine Hundred and twenty-four and of the Independence of the said United States the One Hundred and forty-eighth.

Wm. Parkin, Clerk. (Seal of United States Circuit Court of Appeals, Second Circuit.)

[fol. 903] Supreme Court of the United States

On Petition for Writ of Certiorari to the United States Circuit Court of Appeals for the Second Circuit

Order Granting Petition for Certiorari—Filed Oct. 20, 1924

On consideration of the petition for a writ of certiorari herein to the United States Circuit Court of Appeals for the Second Circuit, and of the argument of counsel thereupon had, it is now here ordered by this Court that the said petition be, and the same is hereby, granted, the record already on file as an exhibit to the petition to stand as a return to the writ.

[fol. 904] IN SUPREME COURT OF THE UNITED STATES

STIPULATION AS TO PARTS OF RECORD TO BE PRINTED—Filed Dec. 5, 1924

It is stipulated and agreed by and between Counsel for the parties to the above entitled cause that the record to be printed under Rule 10 of the Court shall consist of the following designated parts of the printed record certified by the Clerk of the Circuit Court of Appeals, Second Circuit and filed herein with the Petition for Certiorari, reference being made to the titles and pages of said printed record, to wit:

1. Bill of Complaint	pages	1	to	10	inc.
2. Answer	"	11	"	28	"
3. Amendment to Answer	"	30	"	33	"
4. Testimony of Joseph F. Brandenberg	"	142	"	144	"
5. Whitford patent No. 1,028,410	"	201	"	206	"
6. File wrapper and contents of Whitford parent application	"	294	"	365	"
7. File wrapper and contents of Clifford patent No. 1,016,613	"	610	"	661	"
8. Opinion, Learned Hand, D. J.	"	751	"	774	"
9. Interlocutory Decree	"	775	"	778	"
10. Defendant's petition for Appeal	"	786	"	788	"
11. Defendant's Assignment of Errors	"	789	"	793	"
12. Citation	"	794	"	795	"
13. Opinion C. C. A.	"	884	"	899	"
[fol. 905] 14. Order for Mandate	pages	900	to	901	Inc.
15. Clerk's Certificate	"	902			

James A. Watson, Solicitor for Petitioner. Wm. S. Edmonds, Solicitor for Respondent.

Washington, D. C., November 26, 1924.

[File endorsement omitted.]

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No. 472 107

FILED
JUN 23 1924
WM. R. STANSBURY
CLERK

Supreme Court of the United States

OCTOBER TERM—1924.

107

THE ALEXANDER MILBURN COMPANY,
Petitioner,

vs.

DAVIS-BOURNONVILLE COMPANY,
Respondent.

PETITION FOR WRIT OF CERTIORARI TO THE UNITED STATES CIRCUIT COURT OF APPEALS FOR THE SECOND CIRCUIT.

JAMES A. WATSON,
A. PARKER-SMITH,
Counsel for Petitioner.

Supreme Court of the United States

OCTOBER TERM—1924.

THE ALEXANDER MILBURN COMPANY,
Petitioner,
vs.
DAVIS-BOURNONVILLE COMPANY,
Respondent.

PETITION FOR WRIT OF CERTIORARI TO THE UNITED STATES CIRCUIT COURT OF APPEALS FOR THE SECOND CIRCUIT.

To the Honorable the Supreme Court of the United States:

The petitioner respectfully represents unto this Honorable Court as follows:

Statement of Facts.

This suit was brought by Davis-Bournonville Company, respondents, against the Alexander Milburn Company, petitioner, in the United States District Court for the Southern District of New York by Bill of Complaint filed on or about January 31, 1919, alleging infringement of three Letters Patent as follows:

874,666	Gauthier et al.	Dec. 24, 1907
880,099	Rodriques-Ely et al.	Feb. 25, 1908
1,028,410	Whitford	June 4, 1912

Said Court in a decree entered on or about February 9, 1924, held Letters Patent 874,666 and 1,028,410 valid and infringed and patent 880,099 invalid (Record, p. 775). Both parties appealed from said decree to the United States Circuit Court of Appeals for the Second Circuit, and said Circuit Court of Appeals on or about May 26, 1924, filed its opinion (Record, p. 814) affirming the decree of the said District Court.

This petition relates to a question of law affecting the case in respect to patent to Whitford 1,028,410 only, the other two patents not being involved. Claims 3, 6 and 7 of the Whitford patent were in suit.

Ground of Petition.

The writ is prayed for on the ground that the decision of the Circuit Court of Appeals below is in conflict with the decisions of the Circuit Court of Appeals, Sixth Circuit, and the Court of Appeals of the District of Columbia, upon a question of law, the settlement of which is of great importance to the public.

The Question of Law Involved.

The question of law arose in the present case as follows:

1. Plaintiff (Respondent) sued on claims 3, 6 and 7 of the Whitford patent 1,028,410.

2. Defendant pleaded that the patentee, Whitford, was not the original and first inventor or discoverer of any material or substantial part of the thing patented by said Letters Patent No. 1,028,410, but unjustly obtained said Letters Patent for that which was in fact invented by others, citing Harlan A. Clifford, of Jersey City, New Jersey, the patentee of Letters Patent 1,016,613, February 6, 1912, and others. This defense was pleaded under Section 4920 R. S., which

provides that the defendant may plead and prove on trial:

> "Fourth. That he (the patentee) was not the original and first inventor or discoverer of any material and substantial part of the thing patented;"

3. Defendant introduced a certified copy of the file wrapper of patent No. 1,016,613 to Harlan A. Clifford, granted February 6, 1912, in support of this defense.

4. Clifford filed his application Serial No. 605,741 January 31, 1911, and his patent issued February 6, 1912 (Record, p. 659).

5. Whitford filed his original application March 4, 1911 and his divisional application upon which the patent in suit issued January 31, 1912, and his patent issued June 4, 1912 (Record, p. 203).

6. It is conceded that Clifford disclosed in his application of January 31, 1911, but did not claim, the invention covered by the Whitford claims, and that Whitford's application of March 4, 1911, is the earliest record of his invention.

The question of law presented is: Was Whitford the original and first inventor or discoverer of the thing patented to him notwithstanding the earlier disclosure (without claim) of the same thing in the application which resulted in the Clifford patent?

The Honorable Court below answered this question in the affirmative saying in part:

> "For the reasons now set forth we hold that a 'first inventor' within the meaning of that phrase as used in the fourth defence of 4920 must be a person who perfects his invention; no invention can be intellectually perfected unless it is thought out and concluded, and the only evidence of such perfected invention ordinarily derivable from any patent is a union of disclosure and claim.

> Evidence of disclosure only (all we have here) is not enough;—and before publication disclosure alone does not evidence anticipation'' (Record, p. 97).
>
> * * * * * *
>
> ''Result is that we disagree with the ruling of *Lemley vs. Dobson, supra,* and find ourselves in accord with the categorical statement above quoted from *Farmers, etc., Co. vs. Beaver, supra;* holding in conclusion that a patent in evidence under the fourth defense, speaks only from its date of grant, as to all matters disclosed but not claimed therein'' (Record, p. 44).

Lemley vs. Dobson, referred to in the last quoted paragraph, is a leading case in the Sixth Circuit, reported in 243 F. R. 391.

The question presented is also answered in the affirmative by the Circuit Court of Appeals, Seventh Circuit, in Farmers Handy Wagon Co. vs. Beaver Silo & Box Mfg. Co., 236 F. R. 731, 735, in which the Court, speaking by Judge Kohlsaat, said:

> ''The Crosby and Haag patents were co-pending with McClure in the Patent Office. On both of them patents were issued prior to McClure upon applications also filed prior to that of McClure. The appellant contends that these two patents were not in the prior art with regard to the Mc Clure patent, because the several patents granted thereon were subsequent to the date of filing his (McClure's) application.
>
> (1) Among the defenses filed were Nos. 3 and 4, set out in section 4920 of the Revised Statutes (Comp. St. 1913, §9466). They read as follows, viz.:
>
> ''3. That it (the patent) has been patented or disclosed in some printed publication prior to his (the patentee's) supposed invention or discovery thereof, or more than two years prior to his application for a patent therefor.
>
> ''4. That he (the patentee) was not the original and first inventor or discoverer of any material

and substantial part of the thing patented—citing Crosby and Haag, with others, as having previously known of said invention and every material part thereof, and also as having filed applications and received patents thereon."

While under defense 3 aforesaid, in order to be considered in the prior art, the patent cited should have been granted prior to the filing of the application of McClure, yet where the fourth defense is set up, the question as to who was the first inventor is squarely raised, and that matter must be determined on its merits. Barnes Sprinkler Co. vs. Walworth Mfg. Co., 60 Fed. 605, 9 C. C. A. 154; Sundh Electric Co. vs. Rapid Transit Co., 198 Fed. 94, 117 C. C. A. 280. While McClure might have carried his date of invention back to the Crosby and Haag application filing dates, if such were possible, he did not do so. Therefore, Crosby and Haag, having filed their applications prior to McClure's date, must be deemed to have made their several inventions prior to the time when McClure made his. They are thus in the prior art as to McClure for whatever they disclose. *This should, we hold, be limited to such matters as are included in their several claims, unaided by their specifications or by extrinsic evidence except where necessary to elucidate and make the same clear.*" (Italics ours.)

Contra.

In the Sixth Circuit, it has always been held that a patent in evidence under the fourth defense speaks from its application date as to all matters disclosed but not claimed therein, which is in direct disagreement with the decision of the Court below and of the C. C. A., Seventh Circuit, in the Farmers Handy Wagon Co. case, supra. In Lemley vs. Dobson-Evans Co., 243 F. R. 391, 395, C. C. A. Sixth Circuit, with which the Court below states it finds itself in disagreement, it is said:

"(2) This court held, in Drewson vs. Hartje Co., supra, 131 Fed. at page 739, 65 C. C. A. 548, that a patent, the filing date of which antedated the filing date of the patent in suit, was, prima facie, anticipatory; and we have repeatedly accepted and applied that rule (e. g., Electric Co. vs. Westinghouse Co., 171 Fed. 83, 87, 96 C. C. A. 187; Jackson Co. vs. Adler, May 18, 1917, 243 Fed. 386, C. C. A. ; Twentieth Century Co. vs. Loew Co., 243 Fed. 373, C. C. A. , May 8, 1917). To rely upon these cases would be sufficient; but the contrary proposition is urged upon us so often and is observed to such an extent in current decisions that it seems to deserve re-examination. The cases, found cited to support the claim that such a patent is not part of the prior art, are collected in the margin. We are satisfied that the confusion arises out of a question of pleading, and has no foundation in matter of substance."

In the Court of Appeals of the Disritct of Columbia, the question as to whether a patent, disclosing without claiming an invention, when cited as an anticipation, speaks from its application date or from its patent date has been uniformly decided contrary to the holding of the Court below. The decisions of the Court of Appeals, D. C., are of great importance as they control the interpretation of the law in the Patent Office.

In Millett and Reed vs. Duell, Commissioner of Patents, 18 App. D. C. 186; 96 O. G. 1241, the Court of Appeals D. C. said:

"The application was filed on February 17, 1900. It was rejected by the Primary Examiner in an elaborate opinion on reference to a patent issued to one Frederick Lane on February 20, 1900, three days after the filing of the application of the appellants, but which patent had been applied for by Lane upward of two years before. It was contended by the appellants that their application should not be rejected by reference to a patent issued after the filing of their application, in which their alleged invention, if

shown at all, was not claimed, and only appeared in the drawing annexed to the patent; and further that this drawing did not show the invention of the appellants. This contention the Primary Examiner did not sustain; and his ruling was affirmed on appeal both by the Board of Examiners-in-Chief and the Commissioner of Patents. And from the decision of the Commissioner the case has been brought to this Court by appeal.

"With reference to the first branch of the contention of the appellants, we are satisfied that the tribunals of the Patent Office were entirely right in the conclusion reached by them. If the drawings annexed to the Lane patent fully and satisfactorily show the device claimed by the appellants, and if these drawings were the same that were filed with Lane's application in the first instance—and we must assume that they were the same until the contrary is made to appear—it is very plain that they show anticipation of the invention of the appellants. It is of no consequence that Lane does not include this device among the claims of his own invention. His failure so to do simply implies either that he abandoned it to the public, or that he regarded it as already well known to the art. It does not help the appellants in any manner that he does not claim it.

"It is not the fact that a patent was issued to Lane upon his application which constitutes anticipation in this case. Although that patent was issued in so short a time after the application of the appellants that, in view of the usual and necessary course of business in the Patent Office, we might fairly assume that the facts which justified its issue had been satisfactorily shown long before the advent of the appellants to the Office, yet the patent of itself would not be sufficient to show anticipation by Lane of the device of the appellants. But the fact which shows such anticipation is the state of the art at the time as evidenced by the drawings and specifications of Lane's application. For it is the condition of the art at the time at which an alleged invention is made, and not the existence of a patent, which in this connection is

> no more than evidence of the state of the art, which determines whether an invention claimed is actually an invention or not under the patent law. And this state of the art may be shown by a printed book, a periodical publication, a newspaper, anything in fact which can be regarded in law as reasonably sufficient proof of the fact. This we understand to be the rule deduced from reason and the authorities."

In one of the many cases in the Sixth Circuit that are in conflict with the opinion of the Court below Mr. Justice Taft, then Circuit Judge, delivered the opinion. In this case, Cochran vs. Zimmerman, 53 F. R. 801-804, it was held that the patent in suit was anticipated by the patent to Warne which issued about a year later than the patent in suit, the Warne application having been filed five months before complainants filed their application for the patent in suit.

When considering the fourth defense under R. S. 4920 the law in the Second Circuit as stated in the opinion of the Court below is that a patentee claiming an invention is the "first inventor" thereof notwithstanding the existence of a patent disclosing but not claiming the invention based on an earlier filed copending application. The law in the Seventh Circuit as interpreted by the Court below is the same.

The law in the sixth Circuit and in the Court of Appeals, D. C. is, and for many years has been, directly opposed to this doctrine.

The Patent Office, following the Court of Appeals, D. C., has for many years been rejecting later applications upon reference to patents of earlier application date disclosing but not claiming the subject matter claimed in the later applications, when the earlier and later applications have been copending. Irreparable loss is thus being unjustly inflicted upon such later applicants for patents if the interpretation of the law

by the Court below is correct, for the same rule should apply in the Patent Office and in the Courts in determining the rights of a later inventor who claims as against an earlier inventor who discloses but does not claim, assuming that the later inventor files an application before the patent to the earlier inventor has issued.

Wherefore, the petitioner prays:

That a writ of certiorari may be issued out of and under the seal of this Honorable Court, directed to the United States Circuit Court of Appeals for the Second Circuit, commanding and directing said Court to certify and send to this Court, a full and complete transcript of the record of all the proceedings below, to the end that the same may be reviewed and determined by this Court, as provided by law; and that petitioner may have such other and further relief as to this Court may seem appropriate and in conformity with law.

JAMES A. WATSON,
A. PARKER SMITH,
Counsel for Petitioner.

I hereby certify that I am of counsel for petitioner herein, The Alexander Milburn Company; that in accordance with the request of said petitioner, the foregoing petition has been prepared; and that the allegations contained in said petition are true to the best of my knowledge and belief and that said petition is not made for purposes of delay, and is, in my opinion, well founded in law and in fact and should be granted.

JAMES A. WATSON.

Argument.

That there is direct conflict of decision between the Court below and the Circuit Court of Appeals, Sixth Circuit, is so stated in the closing paragraph of the opinion of the Court.

The District Court in the present case gave to this subject able and exhaustive consideration and perhaps no better argument can be advanced in favor of this petition than is contained in the following excerpts from the opinion of the District Court:

> "The question is therefore squarely presented whether on the issue of prior invention it is the claims or the disclosure which counts. That question is unfortunately left in much confusion in the cases" (Record, p. 761).
>
> "In the sixth circuit it has been established by an unusual number of cases that copending applications count precisely as though they were part of the prior art. The comparison on the issue of prior invention is of the disclosures. This has been the rule for over thirty years as established in the following cases" (Authorities) (Record, p. 768).
>
> "Finally in Westinghouse, etc., Co. vs. Metropolitan, etc., Co., 290 Fed. Rep. 681, (C. C. A. 2), it was held that new claims introduced into an application while in the Patent Office did not require any supplemental oath, if the disclosure was unaltered in essentials. This was on the theory that 'what any patentee has invented is theoretically what he discloses and the disclosure is the specification. A claim is a definition of that which has been described in the specification.' Certainly this is inconsistent with the notion that the 'invention' resides solely in the claims.
>
> "Any conclusion amid the confusion of the cases is very doubtful" (Record, p. 766).

The Patent Office has for many years followed the doctrine laid down in Millett & Reed vs. Duell, supra,

by the Court of Appeals, D. C., and has uniformly rejected applications upon patents of an earlier application date disclosing but not claiming the same subject matter. The practice of the Patent Office in this regard is clearly set forth in ex parte Grosselin, 97 O. G. 2977, decided in 1901, and in ex parte Hammond & Hammond, 301 O. G. 1051, decided in 1922. In the latter case it is said:

> "It is believed to be elemental that where there are two patents granted, especially at different dates, there must be two inventions, one invention which forms the basis of one patent and the other invention that of the second patent. A disclosure in a patent is conclusive evidence that the inventor was in possession of a knowledge of what is there discolsed at least as early as the date on which his application was filed. If another patent is to be granted, either to the same or a different inventor, on an application filed subsequently to that on which the patent was granted, such later patent must be for a means or a process involving an invention over what is disclosed in the earlier patent, *whether reached by a claim or not*, unless the filing date of such earlier patent has been overcome by affidavit or judgment of priority." (Italics ours.)

This Court has recognized the importance of harmony between the settled practice of the Executive branches of the Government and the decisions of the Federal Courts, and in the present case it is clear that the opinion of the Court below is directly in conflict with the settled practice of the Patent Office. On this point, this Court said in Bates Refrigerating Company vs. Sulzberger, 157 U. S. 1, 34:

> "If • • • there be reasonable ground for adopting either one of two constructions, this Court, without departing from sound principle, may well adopt the construction which is in har-

> mony with the settled practice of the executive branch of the Government, and with the course of judicial decision in the Circuit Courts of the United States; especially, if there be reason to suppose that vast interests may have grown up under the practice and under judicial decisions which may be disturbed or destroyed by the announcement of a different rule."

It clearly appears there is conflict of decision between the Circuit Courts of Appeal upon the important question of law herein submitted, and it is hoped that an authoritative settlement of the same may be had in the interest of patentees, litigants, and the public generally, and to that end we pray that this petition may be granted.

JAMES A. WATSON,
A. PARKER-SMITH,
Counsel for Petitioner.

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FILED
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IN THE

Supreme Court of the United States

OCTOBER TERM—1924.

No. ~~472.~~ 107

THE ALEXANDER MILBURN COMPANY,
Petitioner,

vs.

DAVIS-BOURNONVILLE COMPANY,
Respondent.

REPLY TO BRIEF FOR RESPONDENT ON PETITION FOR WRIT OF CERTIORARI.

JAMES A. WATSON,
Solicitor for Petitioner.



IN THE

SUPREME COURT OF THE UNITED STATES

OCTOBER TERM—1924.

THE ALEXANDER MILBURN COMPANY,
Petitioner,

vs.

DAVIS-BOURNONVILLE COMPANY,
Respondent.

No. 472.

REPLY TO BRIEF FOR RESPONDENT ON PETITION FOR WRIT OF CERTIORARI.

The brief for respondent is evidently intended to create the impression that the issue involved in the petition for certiorari is simply one of interference between two rival inventors who worked upon the same problem in the same shop. The whole tenor of the brief is misleading and beside the issue and not supported by the record.

There is no evidence that Clifford and Whitford worked in the same shop or knew anything of each other's work or were even acquainted with each other. The only witness on this subject was Brandenberg (record, pages 144, 145), who said, referring to his visit to the plaintiff's shop at the time he

prepared the Whitford application, that Clifford "was an employee about that time or a little earlier" (Q. 9). He said on cross-examination "I don't remember whether Mr. Clifford was there at that time" (X-Q. 11).

The fact that Clifford employed another attorney and did not assign his invention to the Davis-Bournonville Company indicates that his inventive work was done elsewhere and not in the interests of the company.

The statement in the respondent's brief (page 5) that "the fact is that the two patentees worked together side by side under the same roof and on the same problem" is not supported by a scrap of evidence and is highly improbable.

There is no question of interference involved. It is immaterial whether what was disclosed in the earlier Clifford application was invented by Clifford, or whether he obtained knowledge of it from some outside source. He disclosed it in his application and filed his application before the earliest date that can be credited to Whitford. The question is: Was Whitford the first inventor regardless of the earlier disclosure in the Clifford application? The Court below said that he was. Under the authority of Lemley vs. Dobson-Evans Company, 243 F. R. 391, 395, C. C. A., Sixth Circuit, and many other cases in that Circuit running back about thirty years, Whitford was not the first inventor.

We submit that the petition for certiorari should be granted.

Respectfully submitted,

JAMES A. WATSON,
Solicitor for Petitioner.

Washington, D. C.,
October 4, 1924.

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SUPREME COURT
OF THE
UNITED STATES

OCTOBER TERM, 1925

NUMBER 107

THE ALEXANDER MILBURN COMPANY,
Petitioner

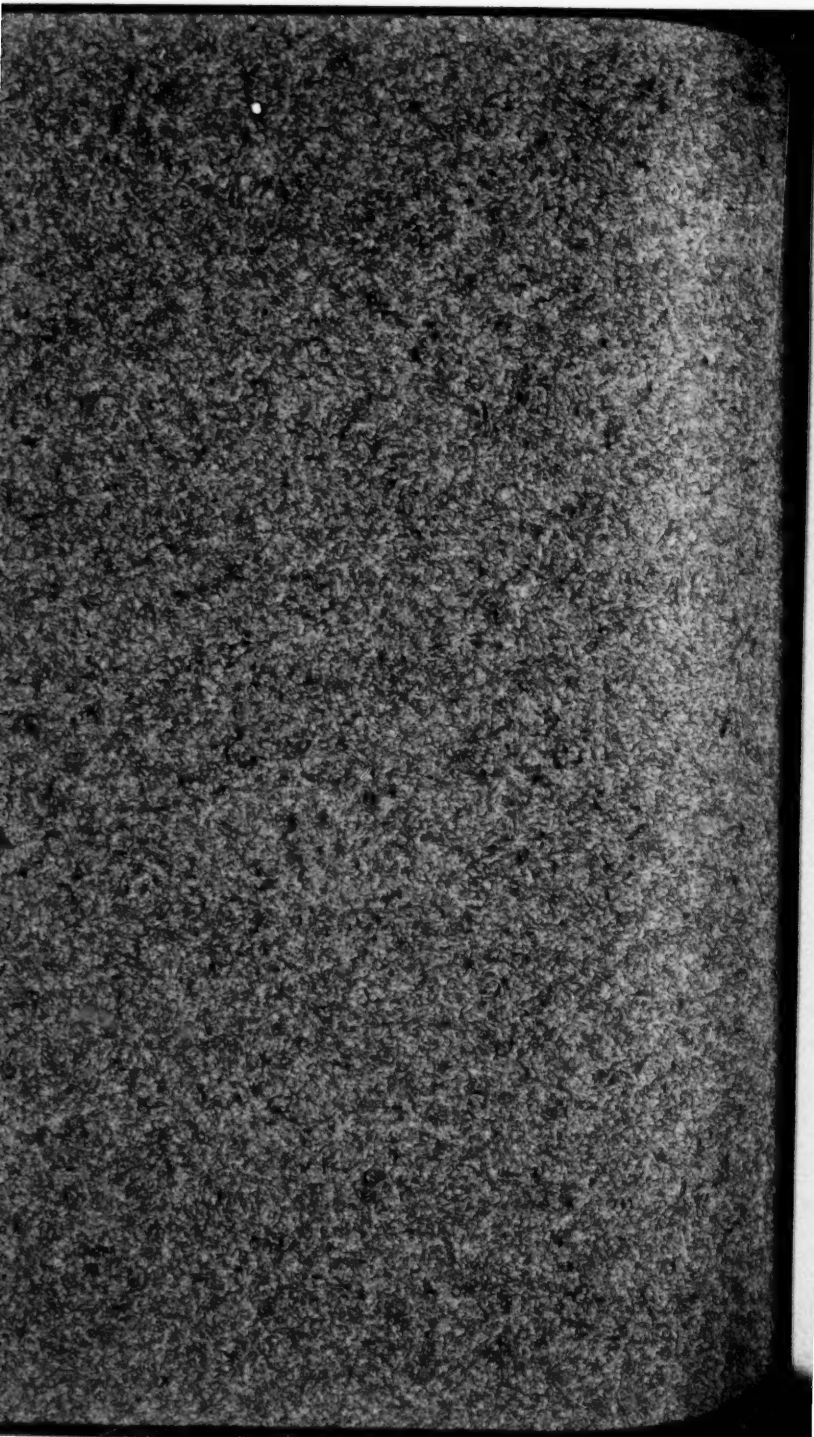
vs.

DAVIS-BOURNONVILLE COMPANY,
Respondent

BRIEF FOR PETITIONER

JAMES A. WATSON,
Counsel for Petitioner

NEWELL-COLE COMPANY, INC., ALEXANDRIA, VA.



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Supreme Court of the United States

OCTOBER TERM—1925.

THE ALEXANDER MILBURN COMPANY, *Petitioner,*
vs.
DAVIS-BOURNONVILLE COMPANY, *Respondent.*
} No. 107.

BRIEF FOR PETITIONER.

TO THE HONORABLE THE SUPREME COURT OF THE UNITED STATES:

This case comes before the Court on certiorari to the United States Circuit Court of Appeals for the Second Circuit. The opinion of the Court below is reported in Vol. 1 (2d) Fed. Rep. 227 (R., p. 102).

Statement of Facts.

This suit was brought by Davis-Bournonville Company, respondents, against the Alexander Milburn Company, petitioner, in the United States District Court for the Southern District of New York by Bill of Complaint filed on or about January 31, 1919, alleging infringement of three Letters Patent as follows:

874,666, Gauthier et al., Dec. 24, 1907;
880,099, Rodriques-Ely et al., Feb. 25, 1908;
1,028,410, Whitford, June 4, 1912.

Said Court in a decree entered on or about February 9, 1924, held Letters Patent 874,666 and 1,028,410 valid and infringed and patent 880,099 invalid (Record, p. 97).

Both parties appealed from said decree to the United States Circuit Court of Appeals for the Second Circuit, and said Circuit Court of Appeals on or about May 26, 1924, filed its opinion (Record, p. 102) affirming the decree of the said District Court.

The petition related to a question of law in respect to patent to Whitford 1,028,410 only, the other two patents not being involved. Claims 3, 6 and 7 of the Whitford patent were in suit.

Ground of Petition.

The writ of certiorari was prayed for on the ground that the decision of the Circuit Court of Appeals below is in conflict with the decisions of the Circuit Court of Appeals, Sixth Circuit, and the Court of Appeals of the District of Columbia, upon a question of law, the settlement of which is of great importance to the public.

How the Question of Law Arose.

The question of law arose in the present case as follows:

1. Plaintiff (Respondent) sued on claims 3, 6 and 7 of the Whitford patent 1,028,410.

2. Defendant pleaded (Record, p. 15) that the patentee, Whitford, was not the original and first inventor or discoverer of any material or substantial part of the thing patented by said Letters Patent No. 1,028,410, but unjustly obtained said Letters Patent for that which was in fact earlier invented or disclosed by others, citing Harlan A. Clifford, of Jersey City, New Jersey, the patentee of Letters Patent 1,016,613, February 6, 1912, and others. This defense was pleaded under Section 4920 R. S., which provides that the defendant may plead and prove on trial:

> "Fourth. That he (the patentee) was not the original and first inventor or discoverer of any material and substantial part of the thing patented;"

3. Defendant introduced a certified copy of the file wrapper of patent No. 1,016,613 to Harlan A. Clifford, granted February 6, 1912, in support of this defense (Record, p. 57).

4. Clifford filed his application Serial No. 605,741 January 31, 1911, and his patent issued February 6, 1912 (Record, pp. 86-87).

5. Whitford filed his original application March 4, 1911, and his divisional application upon which the patent in suit issued January 31, 1912, and his patent issued June 4, 1912 (Record, pp. 56-57).

6. It is conceded that Clifford disclosed in his application of January 31, 1911, but did not claim, the invention covered by the Whitford claims, and that

Whitford's application of March 4, 1911, is the earliest record of his invention.

On the question of identity the Court below said:

> "Clifford sought and obtained protection for an invention quite distinct from that of Whitford, and his claims do not touch or affect those of Whitford; but in the disclosure of his specification he shows a structure which plaintiff admits,—'does [redacted] comply with the requirements of the Whitford patent' " (Record, p. 104).

The Invention in Issue.

The legal question involved may be fully discussed without reference to the physical structures in controversy and it seems only necessary to say a word in respect to the latter.

Whitford's device is entitled a "Blow Pipe" and Clifford's is called a "Torch." Each is what is commonly called an "Oxy-acetylene Torch," a device in common use in one form or another for many years for either cutting or welding metals. Every feature of the Whitford device involved in controversy has its physical and functional counterpart in the Clifford device, in substantially the same arrangement, and the features involved are as essential to the proper operation of the Clifford torch as they are to that of Whitford.

The Question of Law Involved.

The question presented is stated by the Court below in varying language in the following paragraphs:

"That question is this,—assume two copending applications for patent, both ultimately granted; each discloses certain substantially identical matter, which matter is not made the basis of claims in, and is not covered by the claims of the application first filed, but is the basis of and is covered by the claims of the later application;—under such circumstances can the patent of the earlier filing-date be used to invalidate the other patent? (Record, p. 105).

* * * * * * *

"Thus the question is narrowed to this: Does the phrase 'first inventor' of the fourth defense, signify one who describes patentable matter or one who both describes and claims it? (Record, p. 197).

* * * * * * *

"The question may be thus put,—is mere disclosure (confidentially made to the Commissioner of Patents) and no more, per se sufficient evidence of invention? We think that it is not, for the reason that in the absence of an appropriate claim there is no evidence of the perfection of the mental concept which constitutes the intellectual part of invention (Record, p. 107).

Applied to the present case the question of law presented is: Was Whitford the original and first inventor or discoverer of the thing patented to him notwithstanding the earlier disclosure (without claiming) of the same thing in the application which resulted in the Clifford patent, which patent issued while the later application of Whitford was still pending?

Opinion of the Court Below.

The Court says, in part:

> "If Clifford had not only described but claimed the matter now sought to be used by defendant, the Sundh case, *supra* (p. 67) is clear in holding that in the absence of other evidence, and because an application is a constructive reduction to practice, Clifford would have been the original and first inventor or discoverer because he filed the first application; and the fourth defense would succeed" (R., p. 106).
>
> * * * * * * *
>
> "Can it now be said that, by the mere statement of matter which he did not think to use, Clifford had rounded out and completed the mental portion of his inventive act?
>
> We think it cannot. Clifford may be said to have observed certain phenomena, but he certainly drew from them no conclusion that such phenomena contained patentable matter.
>
> The question may be thus put,—is mere disclosure (confidentially made to the Commissioner of Patents) and no more, per se sufficient evidence of invention? We think that it is not, for the reason that in the absence of an appropriate claim there is no evidence of the perfection of the mental concept which constitutes the intellectual part of invention" (R., p. 107).
>
> * * * * * * *
>
> "For the reasons now set forth we hold that a 'first inventor' within the meaning of that phrase as used in the fourth defense of 4920 must be a person who perfects his invention;

> no invention can be intellectually perfected unless it is thought out and concluded, and the only evidence of such perfected invention ordinarily derivable from any patent is a union of disclosure and claim. Evidence of disclosure only (all we have here) is not enough; and before publication disclosure alone does not evidence anticipation" (R., p. 108).

Undoubtedly Judge Hough had no thought of minifying the Clifford specification as a disclosure in fact nor of holding that a claim materially aids the disclosure of a specification, for he said in Westinghouse E. & Mfg. Co. vs. Metropolitan E. Mfg. Co., 290 Fed. Rep. 661, 664:

> "What any patentee has invented is theoretically what he discloses, and the disclosure is the specification. A claim is a definition of that which has been described in the specification. A disclosure tells how to do that of which the claim attempts definition. Theoretically, the celebrated "man skilled in the art" knows how to do what the inventor did when he has perused the disclosure. Whether one infringes a patent primarily depends, to be sure, upon consideration of the claims; but no man would know how to practice the invention by reading the claims, any more than a student would learn the proper demonstration of a theorem by reading the theorem itself."
>
> * * * * * * *
>
> "A claim is not a disclosure; but every claim must be justified by the disclosure."

Error of the Court Below.

We are constrained to believe that the Court below erred

1. In assuming that under the fourth defense of R. S. 4920 it was necessary to show that Clifford was the "first inventor," whereas the statute simply requires proof that Whitford "was not the original and first inventor." No *inter partes* question of priority of invention is involved in this defense.

2. In overlooking the presumption of law that what Clifford disclosed and did not claim was old and known when he filed his application.

In a similar case the Court of Appeals, D. C., said:

> "It is of no consequence that Lane does not include this device among the claims of his own invention. His failure so to do simply implies either that he abandoned it to the public, or that he regarded it as already well known to the art. It does not help the appellants in any manner that he does not claim it." Millett and Reed vs. Duell, Commissioner of Patents, 18 App. D. C. 186; 96 O. G. 1241.

In Mahn vs. Harwood 112 U. S. 354, 361, this Court said:

> "The presumption is, and such is generally the fact, that what is not claimed was not invented by the patentee, but was known and used before he made his invention. But, whether so or not, his own act has made it public property if it was not before. The patent itself, as soon as it is issued, is the

evidence of this. The public has the undoubted right to use, and it is to be presumed does use, what is not specifically claimed in the patent. Every day that passes after the issue of the patent adds to the strength of this right."

3. In overlooking the inequity of the grant to Whitford of a monopoly which would deprive Clifford of the right to use important features of his own device and deprive the public of the right to use what was disclosed in Clifford's prior application and which was either known to Clifford to be old, or, if invented by Clifford, deliberately dedicated to the public.

Abandonment Accrues to the Public.

There are many cases in which this Court and the lower Courts have held that the first inventor, having reduced his invention to practice, may abandon or dedicate his invention to the public, by failure to claim, or for other reasons, but we have found no case in which such abandonment or dedication has been held to entitle a later inventor to a patent for the invention.

Keystone Bridge Co. vs. Phoenix Iron Co., 95 U. S. 274, 279.

Miller vs. Brass Co., 104 U. S. 350, 352.

Eames vs. Andrews, 122 U. S. 40, 59, 60.

Deering vs. Winona Harvester Works, 155 U. S. 286, 296.

McClain vs. Ortmayer, 141 U. S. 419, 423, 424.

In the last mentioned case it is said:

> "Nothing is better settled in the law of patents than that the patentee may claim the whole or only a part of his invention, and that if he only describe and claim a part, he is presumed to have abandoned the residue to the public."

Assuming that Clifford was the inventor of the thing he failed to claim, he made it public property as soon as the patent issued and every day that passed thereafter added to the strength of the public right. Mahn vs. Harwood, 112 U. S. 354, 361.

The right of the public to use the invention was tentative during the period of two years from the date of the Clifford patent as during this period Clifford might have filed an application for a reissue, or a divisional application, claiming the invention. Chapman et al. vs. Wintroath, 252 U. S. 126, 137.

If at any time within two years from the date of his patent Clifford had filed a reissue or divisional application embodying the Whitford claims in issue, he would have been entitled to a patent with those claims, despite Whitford, as his application would have related back to his original filing date. Chapman vs. Wintroath, *supra;* Smith & Griggs Mfg. Co. vs. Sprague, 123 U. S. 249, 250; Millett & Reed vs. Duell, Commissioner of Patents, 18 App. D. C. 186; 96 O. G. 1241; ex parte Grosselin, 97 O. G. 2977.

The issuance of such a patent to Clifford, after interference with Whitford, would have invalidated the Whitford claims as, obviously, there cannot be two monopolies of the same thing. The Whitford

patent was allowed through oversight of the Patent Office and contrary to established practice as pointed out hereinafter in discussing Patent Office Rules (Post, p. 19).

Clifford perfected his invention when he filed his application. The application was a constructive reduction to practice—of what it disclosed—before Whitford conceived. Chapman vs. Wintroath, 252 U. S. 126-137; Smith and Griggs Mfg. Co. vs. Sprague, 123 U. S. 249, 250, 8 Sup. Ct. 122; Von Recklinghausen vs. Dempster, 34 App. D. C. 474, 476, 477.

Between the time that Clifford filed his application and the time, two years from his patent date, when the public came into full possession of what he dedicated, there was no lapse, no period within which a later inventor might have acquired a right. Clifford had an inchoate right to claim the invention or to re-claim it up to the instant the public came into full possession.

Cases in Conflict with the Opinion of the Court Below.

In Roberts vs. Ryer, 91 U. S. 150, a patent to Sanford was sued on. Sanford could not carry his date of invention back of the summer of 1855 when his application was filed (p. 155). In defense it was alleged that a patent to Lyman granted later but applied for earlier was an anticipation. Lyman filed his original application Sept. 21, 1854 (p. 158). He withdrew his application April 19, 1855, and renewed it Nov. 28, 1855, in the meantime, keeping in

correspondence with the Department and pushing his claim. A patent was granted to him March 25, 1856. Sanford then surrendered his patent and obtained a reissue. "The principal defense relied upon was the prior invention of Lyman" (p. 151). After reciting the facts this Court, by Mr. Chief Justice Waite, said:

> "We base our decision upon the facts shown to us. We think the evidence establishes, beyond all question, that Lyman, and not Sanford, was the original and first inventor of all there is of this improvement" (p. 159).

In Pope Manufacturing Co. vs. Gommully Manufacturing Co., 144 U. S. 224, a patent to Peters was sued on and this Court said:

> "There was also a patent issued to one Smith upon the same day the Peters patent was issued, namely, Nov. 20, 1877, but upon an application filed Sept. 1, 1877, prior to Peters' application and, therefore, anticipating Peters' patent" (p. 244).

In the opinion of the trial Court in the instant case Judge Hand said:

> "In the Sixth Circuit it has been established by an unusual number of cases that copending applications count precisely as though they were part of the prior art. The comparison on the issue of prior invention is of the disclosures. This has been the rule for over thirty years as established by the fol-

lowing cases: Cochren vs. Zimmerman, 53 Fed. Rep. 801; Drewson vs. Hartje Paper Mfg. Co., 131 Fed. Rep. 734; Electric, etc. Co. vs. Westinghouse, etc., Co., 171 Fed. Rep. 83; Lemley vs. Dobson-Evans Co., 243 Fed. Rep. 391; Jackson Co. vs. Adler, 243 Fed. Rep. 386; Twentieth Century Co. vs. Loew Co., 243 Fed. Rep. 373; Diamond Power Specialty Co. vs. Mertz Capsule Co., 276 Fed. Rep. 274; Concrete Appliances Co. vs. Meinken, 262 Fed. Rep. 958; Gen. Electric Co. vs. Cooper Hewitt Co., 249 Fed. Rep. 61."

It is noted that the opinion in Cochren vs. Zimmerman, the earliest case noted above, was written by Mr. Chief Justice Taft, then Circuit Judge.

In the latest case in the Sixth Circuit, Naceskid Service Chain Co. vs. Perdue et al., 1 Fed. Rep., 2d, 924, 925, it is said by Judge Denison:

> "Under the settled rule in this circuit (Lemley vs. Dobson (C. C. A. 6), 243 F. 391, 156 C. C. A. 171), the filing date of the Young application, shown by the Young patent, if uncontradicted, is sufficient evidence that Young was the inventor of the device on that date, and hence that Nace, who does not claim conception until a later date, was not the first inventor."

In the First Circuit the question here under consideration is discussed elaborately by Judge Colt in Automatic Weighing Machine Co. vs. Pneumatic Scale Corporation, 166 F. R. 288, and numerous authorities cited. Among other things, it is said:

> "The further argument is advanced that an application is only evidence of a disclo-

sure of a somewhat stronger character than a conception proved by drawings and disclosure. The answer to this argument is that the courts have uniformly held that an application which eventuates in a patent, and which sufficiently describes the invention, is conclusive evidence that the invention was made at the time the application was filed.

While the defendant insists that the filing of an allowable application is not the equivalent of reduction to practice, it admits that the issue of a patent is the 'equivalent in effect in the art to reduction to practice by the completion of a machine.' We cannot see the force or reasonableness of this position. The issuance of the patent is an act of government, with which the inventor has nothing to do except to pay the final fee, while in the filing of a complete and allowable application the inventor has performed all the acts required of him under the statute for the grant of a valid patent." (p. 297).

In the Third Circuit the law is found in the following cases:

In Diamond Drill Machine Co. vs. Kelly Brothers, 120 Fed. 295, a case in the Circuit Court, E. D. Penna., Judge Archbald said (page 298):

"On the other hand, there can be no question as to the existence of the Henry M. Jackson machine as early as July 16, 1896, when he applied for his first patent, for the diagrams which accompanied the application show it exactly as it now is except that the jaws are V-shaped, instead of being serrated. *No claim was made for the separate opera-*

tion of the rolls and jaws, but that is not material. It was a feature of the machine, and that is enough for our present purposes." (Italics ours.)

In Westinghouse vs. Chartiers Val. Gas Company, 43 F. R., 582, 588 (Circuit Court W. D. Penna.), Judge Acheson said:

> "But it by no means follows that Nicholson's application is not to be received for any purpose. It has neither been withdrawn nor rejected. Abandonment by him cannot be alleged. In the interference proceeding he was awarded priority of invention over Verner. That he was prior to Verner is indisputable under the proofs before the Court. The utility of the device in question is demonstrated. It would then be most extraordinary if Nicholson's application could not be shown as affecting Verner's title to the monopoly here set up against the defendant and the public. I think the cases of Northwestern Fire Ex. Co. vs. Philadelphia Fire Ex. Co., supra, and the Corn Planter Patent, supra, are direct authorities to show that the Nicholson application is competent evidence as bearing on the thing alleged to be within the first and second claims of his patent. And I have only to add that, in my opinion, Nicholson's application clearly *described the identical and mechanical construction or combination here claimed to be covered by the Verner patent.*" (Italics ours.)

It will be noted that nothing is said in the above as to the claims of the prior application.

In the Seventh Circuit, in Barnes Automatic Sprinkler Co. vs. Walworth Mfg. Co. et al., 51 F. R. 88 (Circuit Court), a patent to Barnes granted Oct. 19, 1880, upon application filed June 21, 1880, was sued on and a patent to Talcott issued January 31, 1882, upon an application filed April 8, 1879, was cited as an anticipation. The Court said:

> "I am therefore very clear that the Talcott patent of January 31, 1882, which relates back to the time it was applied for in April, 1879, clearly anticipates the 4th and 5th claims of the complainant's patent."

On appeal the opinion of the lower court was affirmed by the Circuit Court of Appeals. Barnes Automatic Sprinkler Co. vs. Walworth Mfg. Co. et al., 60 F. R. 605. It appears from the opinion of Judge Woods, on appeal, that the defendant pleaded that "the grantee of the patent in suit was not, and that the patentee of a patent of later date, issued upon an earlier application, was the first inventor." The Court discusses Bates vs. Coe, 98 U. S. 31, and distinguishes the Barnes case from the rule in that case.

In Farmers' Handy Wagon Co. vs. Beaver Silo & Box Mfg. Co., C. C. A. 7, 236, F. R. 731, Judge Kohlsaat, in discussing the bearing of prior applications upon the McClure patent, in suit, said:

> "They are thus in the prior art as to McClure for whatever they disclose. This should, we hold, be limited to such matters as are included in their several claims, unaided

> by their specifications or by extrinsic evidence except where necessary to elucidate and make the same clear."

In the same paragraph Judge Kohlsaat cites as authority Barnes Sprinkler Co. vs. Walworth, above referred to, which does not support the proposition that in considering a prior application under the fourth defense, the claims are controlling.

In further discussing the prior co-pending applications of Haag and Crosby, the Court said:

> "While both Haag's and Crosby's inventions are prior to McClure's, it is evident that, to overcome the presumptions above set out, the Court must be able to find very clearly from the evidence that the *subject matter* of Crosby is practically identical with that of McClure's claims." (p. 737. Italics ours.)

The Court then proceeds to compare the actual structure of Crosby's application with the structure of the McClure patent, without reference to claims and finds "we are satisfied that nothing in the prior art as shown, or prior knowledge, would justify us in holding that the patent in suit is void for want of patentable novelty." We are left in doubt as to the exact attitude of the Court on the importance of the claims in the prior copending application set up under the fourth defense.

Other cases in the Seventh Circuit leave us in doubt as to the law in that Circuit on the question at bar.

Hamilton Beach Mfg. Co. vs. P. A. Geirer Co., 230 F. R. 430, 435.

Camp Bros. & Co. vs. Portable Wagon Dump & E. Co., 251 F. R. 603.

In the Ninth Circuit in Willard vs. Union Tool Co., 253 F. R. 48, 52 (C. C. A.) it is said:

> "When two patents for the same invention have been issued to independent inventors, the rule is that the dates of their inventions are: (1) The date of the patents; (2) the dates of the applications, provided the application sufficiently describes the invention; and (3) the dates of actual reduction to practice. In the absence of other proof, the filing of the application is taken to be a constructive reduction to practice. In Kearney vs. Lehigh Valley R. Co. (C. C.) 32 Fed. 321, 322, Mr. Justice Bradley said:
>
> "The date of the application, if it describes the invention sufficiently, is conclusive evidence that the invention was made prior to such date."

In the Court of Appeals of the District of Columbia, the question as to whether a patent, disclosing without claiming an invention, when cited as an auticipation, speaks from its application date or from its patent date has been uniformly decided contrary to the holding of the Court below in the present case. The decisions of the Court of Appeals D. C., are of great importance as they control the interpretation of the law in the Patent Office.

In Millett and Reed vs. Duell, Commissioner of Patents, 18 App. D. C. 186; 96 O. G. 1241 it is said:

> "It is of no consequence that Lane does not include this device among the claims of his own invention. His failure so to do simply implies either that he abandoned it to the public, or that he regarded it as already well known to the art. It does not help the appellants in any manner that he does not claim it."
>
> * * * * * * *
>
> "But the fact which shows such anticipation is the state of the art at the time as evidenced by the drawings and specifications of Lane's application. For it is the condition of the art at the time at which an alleged invention is made, and not the existence of a patent, which in this connection is no more than evidence of the state of the art, which determines whether an invention claimed is actually an invention or not under the patent law. And this state of the art may be shown by a printed book, a periodical publication, a newspaper, anything in fact which can be regarded in law as reasonably sufficient proof of the fact. This we understand to be the rule deduced from reason and the authorities.

The Doctrine Announced by the Court Below is in Conflict With the Uniform Practice in The Patent Office During, At Least, the Last Fifty Years.

In United States vs. Hill, 120 U. S. 169, 182, this Court said:

"In Edwards' Lessee vs. Darby, 12 Wheat. 206, 210, it was said: 'In the construction of a doubtful and ambiguous law, the contemporaneous construction of those who were called upon to act under the law, and were appointed to carry its provisions into effect, is entitled to very great respect.' To the same effect are United States vs. Dickson, 15 Pet. 141, 145; United States vs. Gilmore, 8 Wall. 330; Smythe vs. Fiske, 23 Wall. 374, 382; United States vs. Moore, 95 U. S. 760, 763; United States vs. Pugh, 99 U. S. 265, 269; Hahn vs. United States, 107 U. S. 402, 406; and Five per cent. Cases, 110 U. S. 471, 485. In the case of Brown vs. United States 113 U. S. 568, the same doctrine was applied, the cases in this court on the subject being collected, and it being said that a 'contemporaneous and uniform interpretation' by executive officers charged with the duty of acting under a statute 'is entitled to weight' in its construction, 'and in a case of doubt ought to turn the scale.' A still more recent case on the subject is United States vs. Philbrick, ante, 52, where this language is used: 'A contemporaneous construction by the officers upon whom was imposed the duty of executing those statutes is entitled to great weight; and since it is not clear that that construction was erroneous, it ought not now to be overturned."

See also Baltzell vs. Mitchell C. C. A. First, 3 Fed. Rep. 2nd, 428, 430 and authorities there cited.

Prior to 1880 it was the custom of the Patent Office to declare an interference between an application claiming an invention and a patent disclosing but not claiming the invention. Presumably this was for the double purpose of ascertaining whether

the applicant was the first inventor and of giving the patentee an opportunity to prevent the applicant from unjustly obtaining a patent which would prevent him from using what he had disclosed but not claimed in his patent.

In ex parte E. S. Wright, 1870 C. D. 60, Commissioner Fisher said:

> "It is true that, in the argument before the Office and the judge, it was urged that the interference was improperly declared, because Wright made no claim to the device in his patent. Mr. Justice Fisher seems to have thought that there was force in this point, although he expressly declines to base his decision upon it. In truth, the objection is without force. A subsequent application which claims a device which is shown in a prior patent interferes with that patent whether the device be or be not claimed in the patent. In the first place, if the applicant succeeds, it follows, that the patentee can no longer use the whole of that which he has described in his patent; and in the second, if the applicant makes claim to a device which is shown in an earlier patent the Office can grant no patent to him; for, prima facie, he is not the first but the second inventor. He must prove priority, and the necessity for proof creates the necessity for the interference."

The practice is further stated by Commissioner Paine in Bell vs. Gray et al, 15 O. G. 776-777, after quoting the statute (R. S. 4904) as follows:

> "An interference will arise under this statute, as construed by the rules and practice

> of the Patent Office, whenever a like patentable invention is shown in one application and claimed in another. Between an application and an unexpired patent an interference arises only when an invention is shown in both and claimed in the application. These principles will be applied to the case now under consideration."

In ex parte Bland, 16 O. G. 47 (April 8, 1879), Commissioner Paine refused to allow an application of Bland in view of a patent granted to Carpenter showing but not claiming the invention claimed by Bland, without interference. In the syllabus it is stated:

> "The present practice of the Patent Office permits an application to be placed in interference with an unexpired patent which shows, but does not claim the subject matter claimed in the application."

The reason, or at least one reason, for the practice referred to is stated in the decision (page 48) as follows:

> "The law gives the inventor a patent for what he invents and claims, and also a right to a reissue patent for what he invents and shows, but, through inadvertence, fails properly to claim. To ignore the obligation which the original patent imports of a right to a reissue for what the patentee shows, but, through inadvertence, does not claim, at the ex parte request of an applicant, basing his claim to priority of invention, upon a prior foreign patent, would be to trifle with the obligations of the Government and the duties of the Office."

It appears that shortly after the Bland decision the practice of declaring an interference between a pending application claiming and a patent disclosing but not claiming an invention was discontinued. The practice of rejecting an application claiming upon a patent disclosing but not claiming an invention was continued and has been the uniform practice of the Patent Office to the present time. Instead of declaring an interference and determining the question of priority *inter-parties*, present Patent Office Rule 75 permits the applicant to overcome such a patent by making "oath to facts showing a completion of the invention in this country before the filing of the application on which the domestic patent issued." The history of Rule 75 is as follows:

Under a revision of the Rules of Practice put into effect Dec. 1, 1879, the following Rule appeared:

> "74. When an original or reissue application is rejected on reference to an expired or unexpired domestic patent, *which substantially shows or describes but does not claim* the rejected invention, or to a foreign patent, or to a printed publication, and the applicant shall make oath to facts showing a completion of the invention *before the filing of the application for the domestic patents*, or before the date of the foreign patent, or before the date at which the printed publication was made, and shall also make oath that he does not know and does not believe that the invention has been in public use, or on sale, in this country for more than two years prior to his application, and that he has never

> abandoned the invention, then the patent or publication cited will not bar the grant of a patent to the applicant, except upon interference as provided in Rule 94." (Italics ours.)

A revision of the Rules made Sept. 1, 1880, rendered the concluding exception of Rule 74, just quoted, obsolete, but otherwise the Rule remained unchanged.

By a revision made June 18, 1897, the rule was renumbered as 75, and was slightly amended in phrasing, but without any change in substance.

By a revision announced Nov. 19, 1897, and effective January 1, 1898, to conform to the Act approved March 3, 1897, Rule 75 was amended to read:

> "75. When an original or reissue application is rejected on reference to an expired or unexpired domestic patent which substantially shows or describes *but does not claim* the rejected invention, or on reference to a foreign patent or to a printed publication, and the applicant shall make oath to facts showing a completion of the invention in this country *before the filing of the application on which the domestic patent issued,* or before the date of the foreign patent, or before the date of the printed publication, and shall also make oath that he does not know and does not believe that the invention has been in public use or on sale in this country, or patented or described in a printed publication in this or any foreign country for more than two years prior to his application, and that he has never abandoned the invention, then the patent or publication cited will not bar the grant

> of a patent to the applicant, unless the date of such patent or printed publication is more than two years prior to the date on which application was filed in this country." (Italics ours.)

The above rule is at present in force and no change has been made in it during the past twenty-seven years.

It thus appears that for forty-five years last past a rule has been continuously in force in the Patent Office under which a cited earlier domestic patent, *which shows or describes but does not claim* the invention of a pending application, must be overcome by affidavit as to facts showing a completion of the invention in this country by the applicant named in the pending application, prior to *the filing date of the application for the cited domestic patent.* Failing such affidavit, a patent showing but not claiming the invention and having an earlier filing date has been sufficient ground upon which to refuse a patent to a later applicant.

Under the practice of the Patent Office, for at least fifty years last past, the application for the Whitford patent, here involved, should have been rejected upon the Clifford patent which was issued while the Whitford application was pending and which admittedly disclosed, without claiming, the invention claimed by Whitford. The allowance of the Whitford patent was an oversight, as it is admitted that Whitford cannot carry his date of invention back of the filing date of the application for the Clifford patent.

The doctrine announced by the Court below is diametrically opposed to the uniform interpretation of the law by the Patent Office through many administrations and this Court, following the rule announced in United States vs. Hill (supra p. 19) and United States vs. Pugh, 99 U. S. 265, 269, will undoubtedly regard the long established practice in the Patent Office with great respect. In Bate Refrigerating Co. vs. Sulzberger 157 U. S. 1, 26 to 30, this Court examined the decisions of the Commissioner of Patents in detail.

Patent Office Practice Under Rule 75.

The reasons assigned by the Patent Office for rejecting an application upon reference to a patent disclosing but not claiming, and based upon an earlier copending application, are set forth quite fully in Ex parte Grosselin (97 O. G. 2977), decided by Commissioner Allen, as follows:

> "The necessity for refusing a patent to an applicant is not limited to cases where a prior inventor makes claim before this Office to the invention, but exists whenever that prior invention and disclosure in this country are satisfactorily established by any means. Whenever this Office has satisfactory evidence that some other person is as against the applicant entitled to the patent, it is, under the general principles of the law which are well recognized, bound to reject the application. If the inventor, who as against others is under the law entitled to the patent, chooses, he may abandon the invention to the public by a full

disclosure without making claim to it, and when he does so no one else acquires the right to obtain a patent. (Miller vs. Brass Co., C. D. 1882, 49; 210 G. 201; 104 U. S. 350; Mahn vs. Harwood, C. D. 1885, 144; 30 O. G. 657; 112 U. S. 354; Independent Electric Co. vs. Jeffery, C. D. 1897, 287; O. G. 797.) The public assumes whatever rights to the invention he had, and it would be contrary to the law and a fraud upon the public to grant a patent to another. As was said by the Court of Appeals of the District of Columbia in the case of Millett and Reed vs. Duell, (post 410; 96 O. G. 1241), where the application was rejected because of previous invention by one Lane—'It is of no consequence that Lane does not include this device among the claims of his own invention. His failure to do so simply implies that he abandoned it to the public, or that he regarded it as already well known to the art. It does not help the appellants in any manner that he does not claim it'."

* * * * * * *

"The statutes make no provision directly by which an applicant may establish his right to a patent over a reference showing and describing, but not claiming, the invention by proving that he is in fact the first and original inventor. There can be no contest where the reference is not a United States application or patent claiming the invention. By analogy to the statute relating to interferences, however, the applicant should be permitted to show in some way that he is the prior inventor and entitled to a patent in spite of the reference, and since there can be no contest the Office by Rule 75 permits him to make an ex parte showing of his rights. In that ex parte showing, however, it requires the same kind

of facts to be set forth which, if true, would establish prima facie his right to a patent even if the reference claimed the invention. The whole proceeding is by analogy to the interference practice, and therefore, it follows that practice as closely as possible. This is necessary for the protection of the public."

* * * * * * *

"To hold that Congress intended to establish two rules of evidence for determining the effective date of invention—one to be applied where the rights of applicants were to be determined inter partes and another where they were to be determined ex parte—would lead to endless confusion. A question which is ex parte one day may be raised inter partes the next."

Prior Knowledge or Use by a Single Person is Sufficient to Defeat a Patent. The Number Is Immaterial.

Coffin vs. Ogden, 18 Wall. 120, 124.
Bedford vs. Hunt, 1 Mason 302.
Reed vs. Cutter et al, 1 Story 590, 596, 598.
In the latter case Story, J., said:

"If the invention is perfected and put into actual use by the first and original inventor, it is of no consequence, whether the invention is extensively known or used, or whether the knowledge or use thereof is limited to a few persons, or even to the first inventor himself. It is sufficient that he is the first inventor, to entitle him to a patent; and no subsequent inventor has a right to deprive him of the right to use his own prior invention. The language of the Patent Act of 1836, ch. 357, Sec.

> 6, 15, and of the Patent Act of 1837, ch. 45, Sec. 9, fully establishes this construction; and, indeed, this has been the habitual, if not invariable, interpretation of all our Patent Acts from the origin of the Government."

In Pennock et al vs. Dialogue, 2 Peters 1; 1 Robb's Patent Cases 542, 566, it is said, referring to the Act of 1793:

> "The sixth section in the clause under consideration, may well be deemed merely affirmative of what would be the result from the general principles of law applicable to other parts of the statute. It gives the right to the *first* and true inventor and to him only; if known or used before his supposed discovery he is not the *first*, although he may be a *true* inventor; and that is the case to which the clause looks."

In Sewall vs. Jones, 91 U. S. 171, 179, 180, it is said:

> "It is an elementary proposition in patent law, that, to entitle a plaintiff to recover for the violation of a patent, he must be the original inventor, not only in relation to the United States, but to other parts of the world. Even if the plaintiff did not know that the discovery had been made before, still he cannot recover if it has been in use or described in public prints, and if he be not in truth the original inventor. *Dawson* vs. *Follen*, 2 Wash. C. C. 311; *Bedford* vs. *Hunt*, 1 Mas. 302."

Abandoned Applications as Compared With Patented Applications.

The Court below said:

> "There seems no material difference between the attitude of one who files application

> for a patent and never presses it, and one who does the same thing and never uses a portion of his disclosure. It was held in the Corn-Planter Patent, 23 Wall., 181, that a mere application, subsequently abandoned or withdrawn, was no bar to a subsequent patent therefor to another" (R., p. 105).

We can see no analogy between an abandoned application, which is never given to the public, and an application duly prosecuted and published to all the world. The one is like a corpse, buried; the other has perpetual life.

On this question the Circuit Court of Appeals, First Circuit, speaking by Judge Colt, in Automatic Weighing Machine Co. vs. Pneumatic Scale Corporation 166, F. R. 288, 297 said:

> "The cases which hold that a rejected application is not sufficient to establish priority of invention under the statutes have no bearing on the question of the legal effect of a complete and allowable application which will result or has resulted in the granting of a patent. These cases simply enforce the rule that an invention must be perfected and adapted to use in order to prove prior invention or prior use. The Corn-Planter Patent, 23 Wall. 181, 23 L. Ed. 161; Lyman Ventilating & Refrigerator Company vs. Lalor, 1 Ban. & Ard. 403, Fed. Cas. No. 8,632; Northwestern Fire Extinguisher Company vs. Philadelphia Fire Extinguisher Company, 1 Ban. & Ard. 177, Fed. Cas. No. 10,337."

Secrecy in the Patent Office.

The Court below said:

> "The question may be thus put,—is mere disclosure (confidentially made to the Commissioner of Patents) and no more per se, sufficient evidence of invention?"

The Court does not seem to attach much importance to the words "confidentially made to the Commissioner of Patents," but we call attention to the fact that there is nothing in the Clifford record (R., p. 57) to indicate that he desired his application to be treated as confidential.

Rule 15 of the Patent Office Rules of Practice provides that

> "Pending applications are preserved in secrecy."

This is merely a rule of convenience for the conduct of the Office and is not prescribed by statute. On the contrary, R. S. 892 provides that

> "Written or printed copies of any records, papers or drawings belonging to the Patent Office and of Letters Patent authenticated by the seal and certified by the Commissioner or Acting Commissioner thereof, shall be evidence in all cases wherein the originals could be evidence; and any person making application therefor, and paying the fee required by law, shall have certified copies thereof,"

In the Act of 1836, Section 12, providing for the filing of caveats, it is said:

> "And such caveat shall be filed in the confidential archives of the Office, and preserved in

> secrecy. And if the application shall be made by any other person within one year from the time of filing such caveat, for a patent of any invention with which it may in any respect interfere, it shall be the duty of the Commissioner to deposit the description, specifications, drawings and model, in the confidential archives of the Patent Office and to give notice by mail, to the person filing the caveat."

This, we believe, is the only reference in the Patent Statutes to "confidential archives of the Patent Office." This special provision that an application which would interfere with a caveat was to be deposited in the confidential archives would indicate that the law contemplated that other applications were not so deposited, and not required to be kept secret, following the maxim: Expressio unious est exclusio alterius.

The law relating to caveats was repealed by Act of January 25, 1910, and there is now no statute in force requiring that any application be kept secret. Pending applications are made public when they interfere with other applications or with patents and when they are appealed to the Court of Appeals, D. C. It is believed that the rule of secrecy should not be given effect in the Courts to defeat the rights of the public and of the first inventor or discloser in matter disclosed but not claimed in an application duly patented.

Confusion in the Cases.

In the cases we have referred to, and many others having a bearing on the fourth defense under R. S.

4920, there is much confusion. This has resulted in a measure from improper pleading. In many cases and in the present case, the Courts have confused the issue with discussion as to whether the evidence of prior knowledge or use offered was evidence of prior "invention" by the earlier discloser. The right of the public to what was disclosed and not claimed by the earlier applicant for patent has usually not been considered. The uniform and consistent practice of the Patent Office has never been mentioned. The presumption that what an applicant for a patent discloses and does not claim was old when the application was filed, has been overlooked.

All of these have a bearing on the question whether the patentee of a patent in suit was the "first inventor." The established law that a complete filed application is evidence of completed invention of the disclosure at the date of filing, that is, reduction to practice of the disclosure, regardless of claims, (Chapman vs. Wintroath, 252 U. S. 126, 135, 137) has not been seriously applied in considering the defense that a later inventor was not a "first inventor."

The Patent Office, in a case like the present, rejects an application on a patent showing but not claiming the invention claimed by a later applicant if the application upon which the patent issued is of earlier date. In such case the Patent Office has within its records documentary evidence of the earlier disclosure and it would seem to be illogical and inconsistent with the statutes for the Patent Office to ignore such earlier disclosure. Yet if the doctrine announced by the Court below is sound, a later in-

ventor may come in and claim anything which prior inventors have disclosed without claiming if he makes his application before, even one day before, a patent issues carrying the earlier disclosure. The earlier discloser would thus be ousted of his right to use what he either invented or knew to be old at the time he filed his application and the public would be ousted of its right to use what was either old when the earlier application was filed or dedicated by the earlier inventor. The doctrine of reduction to practice by filing an application, which means that the filing of a complete application is equivalent to the building of a complete operative embodiment of the invention, a completion of the inventive act, is wholly inconsistent with the theory that one who conceives the invention later and files his application later is to be regarded the "first inventor" if only he claims what the earlier applicant did not claim.

The Patent Statutes.

In the last analysis the statutes of course govern and it seems to us that the opinion of the Court below is inconsistent with them, taken as a whole. Section 4886 provides that any person may obtain a patent who has invented something "not known or used by others in this country before his invention or discovery thereof." Section 4892 requires that the applicant for a patent "shall make oath that he does verily believe himself to be the original and first inventor or discoverer" of the thing for which he solicits a patent. In order that two patents may not issue for the same invention Section 3904 pro-

vides for interference proceedings to be instituted by the Commissioner "to determine the question of priority of invention," and in such cases the patent is always issued to the first inventor. Section 4917 provides that "when a patentee has claimed more than that of which he was the original or first inventor or discoverer he may make disclaimer of such parts of the thing patented as he shall not choose to hold." Section 4920 provides that in any action for infringement the defendant may plead and prove on trial that the patentee "was not the original and first inventor or discoverer of any material and substantial part of the thing patented." Section 4923 provides that when a patentee at the time of making his application "believed himself to be the original and first inventor and discoverer of the thing patented "his patent shall not be held void on account of the invention or discovery having been known or used in a foreign country prior to his invention or discovery if it had not been patented or described in a printed publication." This is the only exception in the statutes to the rule that the first inventor only is entitled to a patent and that a patent is invalid if issued to one who is not the first inventor.

Throughout the patent statutes in force and all previous statutes relating to patents, it is provided that the first inventor only is entitled to a reward. The only exceptions are cases where the invention, previously known, has become a "lost art," or where the previous knowledge was in a foreign country and unpublished, or where the first inventor unduly kept his invention secret and took no steps to give

it to the public. Where the first inventor without reserve or delay gives his invention to the public, it is believed no later inventor is entitled to a monopoly under the statutes. The language of the statutes is explicit on this subject and there seems to be "no room for the office of construction." Lewis vs. United States 92 U. S. 618; Doggett vs. Florida R. Co. 99 U. S. 72; Bate Refrigerating Co. vs. Sulzberger 157 U. S. 1, 36, 37.

The Adoption of the Theory of the Court Below That a Claim Is Necessary to Evidence Completion of an Invention Would Increase Litigation and Create Confusion in the Patent Office and in the Courts.

Claims to the same invention by different inventors are naturally framed in different language and of different scope and under well established law a claim may be presented at any time while an application is pending, or, for the first time, after a patent issues, in a reissue application or a divisional application. If a claim is to be considered as a criterion of completed invention, the established doctrine of constructive reduction to practice of an invention by filing a complete allowable application would be a nullity, because, until the expiration of the time within which additional claims might be made had expired, the inventive act could not be deemed complete. An applicant might claim part of his invention in his original application and continue from time to time to claim additional parts, or to make broader or more specific claims for the

thing originally claimed, and we would have piecemeal completion of the invention notwithstanding it was fully described and illustrated at the time of filing the application. This would lead to endless confusion in the interference practice of the Patent Office and result in contests as to who was the first to claim this and that feature and as to the scope and meaning of claims, regardless of the disclosures in the specifications and drawings and the dates of filing the same.

In the Courts the same difficulties would be encountered in interference cases under Section 4918 R. S. and in cases involving the third and fourth defenses under Section 4920 R. S. Many difficult situations would arise and litigation would be complicated thereby. The present simple rule that an application duly filed in the Patent Office completely disclosing an invention is deemed constructive reduction to practice of the invention and a completion thereof as of the date of filing, to which date all allowable claims based on such disclosure, whenever made, relate back, is logical and simple and so is the practice thereunder established in the Patent Office and in the Courts. To depart from this rule in the direction indicated by the Court below would apparently be a calamity.

The Distinction Drawn by the Court Below Between An Application Claiming and One Describing Without Claiming Is Arbitrary, Artificial, And Not Founded in Substance.

The Court below said:

> "If Clifford had not only described but claimed the matter now sought to be used by

> defendant, the Sundh case, supra is clear in holding that in the absence of other evidence, and because an application is a constructive reduction to practice, Clifford would have been the original and first inventor or discoverer because he filed the first application; and the fourth defense would succeed" (R., p. 106).

In Mahn vs. Harwood, 112 U. S. 354, 361 this Court said:

> "The presumption is, and such is generally the fact, that what is not claimed was not invented by the patentee, but was known and used before his invention."

The proof of the prior disclosure of Clifford, the file-wrapper, is the same for what he omitted to claim as for what he claimed because, as Judge Hough well says in Westinghouse E. & Mfg. Co. vs. Metropolitan E. Mfg. Co. 290 F. R. 661, 664:

> "A claim is a definition of that which has been described in the specification. A disclosure tells how to do that of which the claim attempts definition. * * * A claim is not a disclosure; but every claim must be justified by the disclosure."

And so, we say, that the distinction drawn by the Court below between disclosure with claim and disclosure without claim lacks substance, it is purely artificial. If Whitford was not the first inventor of the subject matter here in controversy can it make any difference whether the anticipating matter found in the earlier application of Clifford was invented by

Clifford or known by him to be old at the time he filed his application? This seems to be the question for the Court to decide.

The case of Roberts vs. Ryer 91 U. S. 150 is almost on "all-fours" with the present case. The patent sued on was granted to Sanford Nov. 13, 1855. This Court said:

> "Sanford, the patentee does not carry his invention back of the Summer of 1855, when, it perhaps sufficiently appears, his application was filed" (p. 155).

The defense was that Sanford was not the "original and first inventor," and a patent to Lyman, applied for Sept. 21, 1854, was set up as evidence that Sanford was not the first inventor. Lyman's patent issued March 25, 1856, four months *after* the Sanford patent issued. This Court said:

> "Clearly Lyman was the oldest inventor, and his patent was consequently the best, although that of Sanford antedated his" (p. 158).
>
> "We think the evidence establishes beyond all question, that Lyman, and not Sanford, was the original and first inventor of all there is to this improvement" (p. 159).

Two circumstances only might possibly be considered as differentiating Roberts vs. Ryer from the present case. The earlier inventor claimed his invention rather broadly. Sanford claimed a specific improvement which the Court held to be unpatentable over Lyman unless he could carry his date of invention back of Lyman. The comparison drawn

however was between the subject matter which was claimed by Sanford and the subject matter disclosed by Lyman.

The other circumstance is that the Court referred to the fact that Lyman had built some refrigerators embodying the principle of his invention (p. 158). No mention is made of the dates when these were built, the only dates considered being the application and patent dates of the parties. We think clearly the case was decided on the fact of the earlier application and disclosure of Lyman, regardless of any devices that were built and regardless of the fact that Lyman claimed his invention. There is nothing in the case contrary to this proposition.

In the instant case Whitford simply escaped the vigilance of the Patent Office, which is not strange considering the volume of business passing through that office; otherwise his application would have been rejected on the Clifford patent. On the record here he would have been unable to overcome Clifford's filing date and his case would have become abandoned, as hundreds of others have in like circumstances. Whitford's patent was inadvertently issued. The Clifford file-wrapper discloses that Whitford was not the first inventor and sustains the fourth defense under R. S. 4920.

Respectfully submitted,

JAMES A. WATSON,
Counsel for Petitioner-Defendant.

Washington, D. C.
November 2, 1925.

APPENDIX.

Cases Under the Earlier Patent Acts Holding First Inventor Only Entitled to Patent.

Section 1 of the law of the Patent Act of 1790 provided for the issuing of a patent for any invention or discovery or improvement therein "not before known or used" and Section 2 provided that the grantee of each patent should file a specification in writing so particular as to "distinguish the invention or discovery from other things before known or used."

The Act of 1793, Section 1, provided for issuing a patent to any inventor of a new and useful art, etc., "not known or used before the application" for the patent and in Section 6 it was provided that the defendant in an action on the case upon notice to the plaintiff might offer proof "that the thing, thus secured by patent, was not originally discovered by the patentee, but had been in use."

In the Act of 1836, Section 6, it is provided that any person or persons having discovered or invented any new and useful art, etc., "not known or used by others before his or their discovery or invention thereof" etc., shall be entitled to a patent. Section 7 of this Act provided for examination of applications by the Commissioner and provided for rejection of an application "whenever, on such examination, it shall appear to the Commissioner that the applicant was not the original and first inventor or discoverer thereof." Section 15, the defense section, provided that the defendant in any action for in-

fringement might show, among other things, "that the patentee was not the first inventor or discoverer of the thing patented, or of a substantial and material part thereof claimed as new."

In the Patent Law now in force R. S. 4886 provides for the issuance of a patent to any person who has discovered or invented any new and useful art, etc., "not known or used by others in this country, before his invention or discovery thereof." R. S. 4892 requires that the applicant for patent shall make oath that he verily believes himself "to be the original and first inventor or discoverer of the art," etc., for which he solicits a patent.

From the beginning of patent litigation in this country the courts have almost universally held that prior knowledge of an invention evidenced by written description or drawings sufficient to enable a skillful workman to practice the invention would defeat a patent granted to one who conceived the invention later. We quote here from Digest of American Cases Relating to Patents for Inventions from 1789 to 1862, by Stephen D. Law, published in 1862, memoranda of a few of the cases decided under the Act of 1836 and the earlier Acts, referring to the pages and sections.

> Page 243, Sec. 23: "The defense, provided by Section 15 of the Act of 1836, 'that the patentee was not the original and first inventor or discoverer of the thing patented,' is complete without showing that the first inventor had put his invention in practice. Hildreth vs. Heath, MS. (App. Cas.)—Cranch, Ch. J.; D. C., 1841."

Page 444, Sec. 4: "The original inventor of a machine is exclusively entitled to a patent for it. Odiorne vs. Winkley, 2 Gall., 53.—Story, J.; Mass., 1814."

Page 444, Sec. 5: "The first inventor is entitled exclusively to a patent-right, though a subsequent person may have also been an original inventor. The law gives the right, as among inventors, to him who is first in point of time. Lowell vs. Lewis, 1 Mas., 190.—Story, J.; Mass., 1817."

Pages 444 and 445, Sec. 6: "The first inventor who has put the invention in practice, and he only, is entitled to a patent. Every subsequent patentee, although an original inventor, may be defeated of his patent-right upon proof of such prior invention being put in use. The law adopts the maxim, Qui prior est in tempore, potior est in jure. Bedford vs. Hunt, 1 Mas., 304. Story, J.; Mass., 1817."

Page 445, Sec. 10: "But if a first inventor reduced his theory to practice, and put his machine or other invention into use, the greater or less use of it, or the more or less widely the knowledge of it might circulate, does not constitute a criterion by which to decide upon the validity of any subsequent patent for the same invention. Ibid., 305."

Page 445, Sec. 15: "Under our patent laws, no person who is not at once the first as well as the original inventor, by whom the invention has been perfected and put into actual use, is entitled to a patent. Reed vs. Cutter, 1 Story, 596, 598.—Story, J.; Mass., 1841."

Pages 445 and 446, Sec. 16: "A subsequent inventor, though an original inventor, is not entitled to any patent, and no subsequent inventor has a right to deprive an original in-

ventor of the right to use his own prior invention. Ibid., 596, 597."

Page 446, Sec. 23: "A patent issued to second inventor, before the application for a patent by the first inventor, which will bar the issuing of a subsequent patent to the first inventor, must be, comparing Section 7 with Sections 6, 8, and 15 of the act of 1836, a patent issued prior to his invention, and not merely prior to his application. Hildreath vs. Heath, MS. (App. Cas.)—Cranch, Ch. J.; D. C., 1841."

Page 450, Sec. 57: "He who first makes known sufficiently an invention, by describing it in words or drawings, will be considered the first inventor, and vested with an inchoate right to its exclusive use, which he may embody, perfect, and make absolute by proceeding to mature it in the manner which the law requires. Hill vs. Dunklee, MS. (App. Cas.) —Morsell, J.; D. C., 1857."

Page 450, Sec. 59: "The first inventor is not he who made or perfected the first machine or instrument, but he who was the first to conceive the idea, and who so described it by words or drawings sufficient to enable a skillful workman to bring it into useful practical operation. Davidson vs. Lewis.—Morsell, J.; D. C., 1858."

Page 596, Sec. 9: "Under Section 6 of the Act of 1793, if the thing had been in use or known anterior to the patentee's supposed discovery, his patent is void. Though the patentee had no knowledge of such previous use, still his patent is void, as the law supposes he may have known it. Evans vs. Eaton, 3 Wheat., 514.—Marshall, Ch. J.; Sup. Ct., 1818."

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Supreme Court of the United States

OCTOBER TERM, 1925

NUMBER 107

THE ALEXANDER MILBURN COMPANY,

Petitioner,

vs.

DAVIS-BOURNONVILLE COMPANY,

Respondent.

SUPPLEMENTAL BRIEF FOR PETITIONER

JAMES A. WATSON,
Counsel for Petitioner.

SUPPLEMENTAL BRIEF FOR PETITIONER

We desire to bring to the attention of the Court two cases reported in 7 F. R. (2d), the advanced sheets of which came to hand after filing our main brief, as follows:

In Ladd vs. W. & H. Walker, 7 F. (2d) 72 (C. C. A. Third Circuit, decided August 12, 1925), a Bell patent having an earlier filing date than the Ritts patent in suit was set up in defence. The Bell patent was granted later, and the Court said:

> "The Bell patent was not in the prior art, but, while this is true, and while the Bell patent cannot be used as an anticipation, it is pertinent evidence on the questions of priority of invention and infringement" (p. 78).

In Universal Rim Co. vs. Firestone Tire & Rubber Co., 7 F. (2d) 24, (C. C. A. Sixth Circuit, decided July 18, 1925), a patent to Baker was sued on and a patent to Shaw of earlier filing date was set up in defence. The Court said:

> "In accordance with our established view, it must be held that Baker cannot be the first inventor of anything which had previously been completely invented and constructively reduced to practice by Shaw, even though Shaw's patent did not get issued until after Baker's application was filed" (p. 26).

Constructive Reduction to Practice by Filing a Complete Application Implies Completion of the Invention at the Time of Filing.

This is substantially stated in the Universal Rim Co. case above, and by this Court in Chapman vs. Wintroath, 252 U. S. 126. In the latter case no claim was made for the invention in controversy until long after the application was filed, yet this Court said:

> "where an invention clearly disclosed in an application, as in this case, is not claimed therein, but is substantially claimed in another application, the original will be deemed a constructive reduction of the invention to practice and the later one will be given the filing date of the earlier, with all its priority of right" (p. 137).

In Smith & Griggs Mfg. Co. vs. Sprague, 123 U. S. 249, two patents to Sprague were sued on. The two patents disclosed the same machine, each claiming different features of it. The applications were filed Dec. 2, 1878, and Nov. 11, 1879. While the claims of the patent on the later application were not made in the earlier application, this Court said:

> "The machines described in the two patents, it is admitted, are substantially the same in construction and operation, both patents being for different parts and combinations of a single machine. For the purposes of this case, therefore, the date of the application is to be taken as of Dec. 2, 1878, being the earlier of the two" (p. 250).

It clearly appears that the filing of an application is evidence of constructive reduction to practice and completion of the invention described therein, whether or not the invention is claimed at the time of filing, and that the doctrine of the Court below that

> "no invention can be intelligently perfected unless it is thought out and concluded, and the only evidence of such perfected invention ordinarily derivable from any patent is a union of disclosure and claim" (R. p. 108).

is not sound.

It has always been held, without restriction as to when claims were made, that the date of the invention to be ascribed to a patent sued on is at least as early as the date of the application, if the application is proved. Bates vs. Coe, 98 U. S. 31, 33. The Barbed Wire Patent, 143 U. S. 275, 280; Worley vs. Tobacco Co., 104 U. S. 340, 342.

A different rule as to a patent set up in defence, accompanied by the application therefor, would be illogical.

Respectfully submitted,

JAMES A. WATSON,
Counsel for Petitioner.

OCT 3 1924
WM. R. STANSB
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IN THE

Supreme Court of the United States

OCTOBER TERM—1924.

No. ~~412.~~ 107

THE ALEXANDER MILBURN COMPANY,
Petitioner,

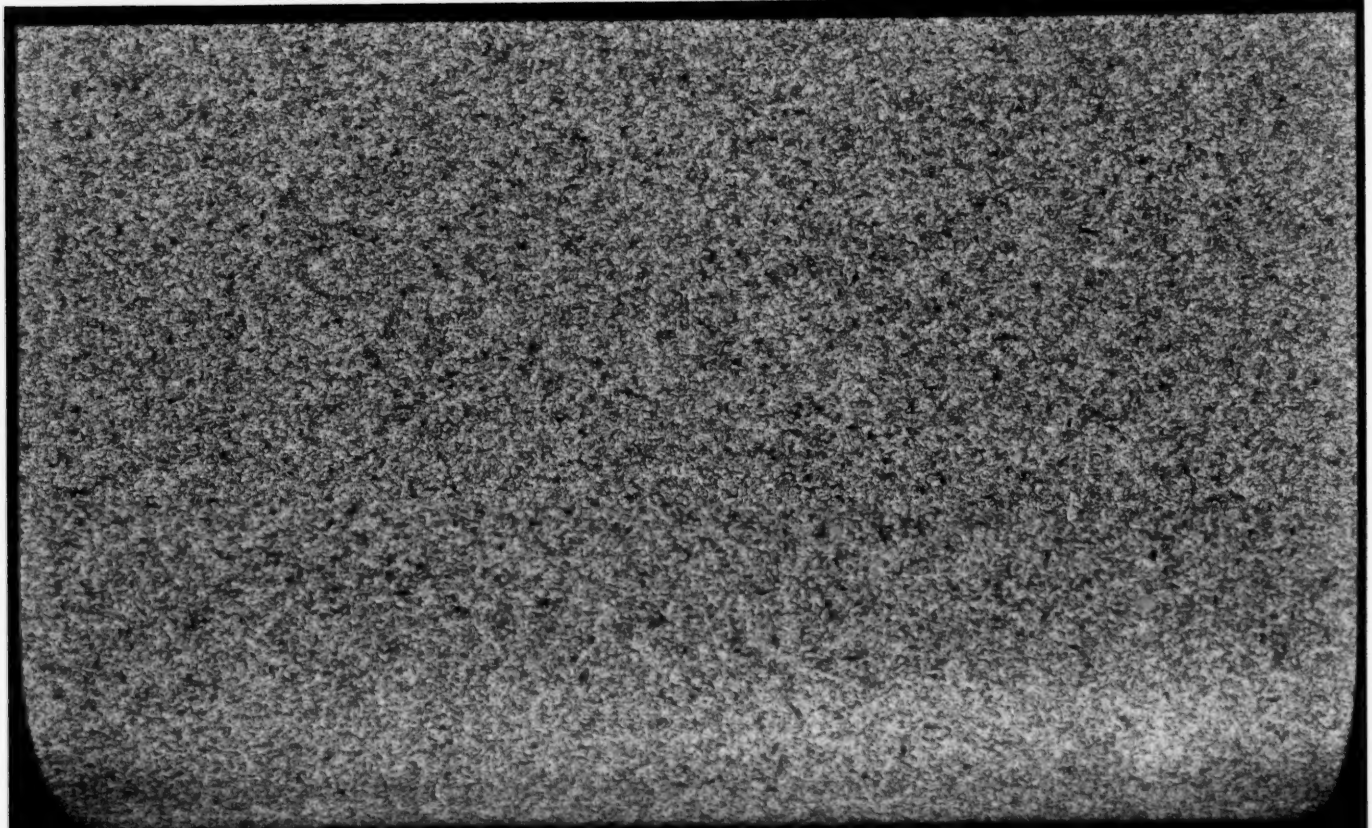
vs.

DAVIS-BOURNONVILLE COMPANY,
Respondent.

BRIEF FOR RESPONDENT ON PETITION FOR WRIT OF CERTIORARI.

DEAN S. EDMONDS,
Solicitor for Respondent.

Gallo & Ackerman, Inc., 107 Liberty Street, N. Y.



Supreme Court of the United States

OCTOBER TERM, 1924.

No. 472.

THE ALEXANDER MILBURN COMPANY,
Plaintiff,

vs.

DAVIS-BOURNONVILLE COMPANY,
Respondent.

BRIEF FOR RESPONDENT.

The record in this case presents a matter of fact which is not mentioned in the petition and which is of controlling importance.

The Harlan A. Clifford referred to as the patentee of patent No. 1,016,613 (Rec., page 658) was in the employ of the respondent (plaintiff) company at the time his invention was made (Rec., pages 143-4, Qs9-14). Whitford, the patentee of the patent in suit, was also in the employ of the company. These two men probably worked side by side month after month, familiar with all the problems that confronted the company in the

development of its business and each fully cognizant of what the other did or suggested by way of solution of those problems. That was prior to 1911, when the oxy-acetylene torch was far from its present highly-developed state; at that time problems were plentiful and the shop of respondent where Clifford and Whitford worked day after day was probably the greatest center of activity in solving them.

Clifford produced the form of torch shown in his patent. He had a certain definite purpose in view and he devised a construction which achieved that purpose. Then he applied for a patent and in the specification of the patent he set forth fully what his purpose was, described his construction and pointed out how that construction attained that purpose.

Whitford's effort was along distinctly different lines. When the specifications of the Clifford and Whitford patents are compared, it is apparent that there is no suggestion of a conflict between them. Also, when the claims are compared, it is equally clear that each made claim to an invention quite distinct from that claimed by the other.

One of the points urged by defendant in this case is based on the alleged fact that the construction illustrated and described in the Clifford patent embodies the inventive idea described in the Whitford patent as having been originated by Whitford, and claimed in the Whitford patent as of Whitford's invention. Clifford did not state that it was of his invention and he did not claim it, either in his patent or anywhere else. He as-

serted in his patent that his invention was something distinctly different, something which he did claim, and he described a construction which, if it embodies Whitford's invention, does so merely as an incident to disclosing his own invention. It is probable that Clifford was entirely familiar with what Whitford had devised and that his whole effort was to carry Whitford's accomplishment forward one further step; that would explain fully his illustration and description of a construction which may now seem to embody Whitford's invention and his statement and claim, made at the time, that his own invention lay in certain special features which distinguished his torch from all others.

It so happens, for some reason not explained in the record and probably not now explainable, that Clifford's application for patent was placed on file in the Patent Office 34 days before Whitford's was filed; January 31, 1911, for Clifford, and March 4, 1911, for Whitford. The petition for *certiorari* is based wholly upon that. It asks the Court to assume, from the single circumstance that Clifford's application was 34 days prior in date of filing, that Clifford was the inventor of what Whitford claims, although Clifford does not say he was the inventor of it and does say he was the inventor of something else, and although Clifford undoubtedly knew, just as well as Whitford and better than anyone else, exactly what it was that he invented and exactly what it was that Whitford invented. Petitioner asks the Court to assume this from one single item of evidence, namely, a certified copy of the

application for the Clifford patent whose sole purpose and function was and is to establish the date, January 31, 1911, when the application for the Clifford patent was filed.

We say in reply that this document alone, serving only to fix a date about which there never was any controversy, should not give rise to an assumption, and justify action on an assumption, that Clifford was the original inventor of something which he has never asserted was invented by him, something described incidentally in his patent though not stated to be his invention and not covered by any claim. Otherwise stated, we say that an assumption that Clifford was the inventor of a certain invention is not justified by a document in which Clifford said he was the inventor of some other invention.

The petition is correct in its statement on page 3 that the only defense involved is that of prior invention, that is, that Clifford made the invention described and claimed in the Whitford patent in suit before Whitford made it. It is also correct in its statement on that same page with respect to the proof on which that defense rests, namely, that it consists of a single document consisting of a record of the proceedings in the Patent Office which led up to the grant of the Clifford patent.

That one document is offered as proof that Clifford was the first inventor of the particular invention involved in this suit, although it is a document in which Clifford states, as plainly as words can state it, that he was the inventor of a distinctly different invention.

The Court is requested by petitioner to assume that Clifford did not know what he had invented and that what was stated to be his invention and was claimed in his patent was wholly fortuitous or the selection of his attorney. Proceeding from that, the Court is requested by petitioner to assume that Clifford was the inventor of every novel feature of the construction illustrated in the drawings of his patent, irrespective of whether or not he said so, and that he had a full appreciation of the value of features of torch construction other than those which he stated were of value and claimed as of his invention.

We question whether such an assumption should be made in any case; but certainly no such assumption would be justifiable in a case like the present one where the fact is that the two patentees worked together side by side under the same roof and on the same problems. It is far more reasonable and sensible to assume that each knew what the other had done, that each knew what his own contribution to the art was, and that each told his patent attorney what he had invented and what he wanted a patent for and what to say was his invention and what to claim as his invention.

That being so, the question of law stated in the petition does not apply to the facts here presented. No case has been cited in the petition, or elsewhere in the progress of this suit, paralleling the facts of this case.

We submit, therefore, that the petition for *certiorari* should be denied.

Respectfully submitted,

DEAN S. EDMONDS,
Solicitor for Respondent.

DEAN S. EDMONDS,
J. H. BRANDENBURG,
E. H. MERCHANT,
of Counsel.

New York, N. Y., September 21, 1924.

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In the Supreme Court of the United States

OCTOBER TERM, 1925

No. 107

THE ALEXANDER MILBURN COMPANY, PETITIONER

v.

DAVIS-BOURNONVILLE COMPANY

ON WRIT OF CERTIORARI TO THE UNITED STATES CIRCUIT COURT OF APPEALS FOR THE SECOND CIRCUIT

BRIEF ON BEHALF OF THE UNITED STATES AS AMICUS CURIAE

PRELIMINARY STATEMENT

This brief is limited to the discussion of the single proposition that the mere disclosure of a structure or process in a patent, which disclosure is sufficient to enable one skilled in the art to construct the machine or carry out the process, will, even though unclaimed, be enough to anticipate and invalidate either an earlier or later patent claiming the same thing, if the filing date of the application of the disclosing patent be earlier than the filing date of the patent sued upon, and even though its date of issue

be later, if the patents were copending, on the ground that it shows prior invention or prior knowledge of the invention.

The question appears to have never been definitely and specifically determined by this Court.

It has been definitely and specifically determined by certain Circuit Courts of Appeals, and the conclusions are diametrically opposed, leaving no authoritative and conclusive rule applicable to and binding upon all the circuits and their courts.

That such a definite and specific ruling is desirable to avoid confusion, to secure stability of business procedure and to reduce litigation, requires no argument.

The Circuit Courts of Appeals for the Second and Seventh Circuits are consistent in holding that such disclosure alone does not amount to an anticipation invalidating a patent issued later than the filing date of the patent containing the unclaimed disclosure, at least where the patent is only pleaded as an anticipating *patent*.

The leading cases supporting this doctrine are in the Seventh Circuit:

> *Farmers' Handy Wagon Co.* v. *Beaver Silo & Box Mfg. Co.*, 236 Fed. 731.

and in the Second Circuit is this instant case.

On the other hand the Sixth Circuit has always held that a patent in evidence under the fourth defense enumerated in Section 4920 R. S.; that is:

> That (the patentee) was not the original and first inventor or discoverer of any material and substantial part of the thing patented.

speaks from its *application* date as to all matters disclosed, even if not claimed therein.

The leading cases in this, the Sixth Circuit, are—

Cochran v. *Zimmerman*, 53 Fed. 801.

Lemley v. *Dobson-Evans Co.*, 243 Fed. 391.

Drewson v. *Hartje Paper Mfg. Co.*, 131 Fed. 734.

Electric Controller & S. Co. v. *Westinghouse E. & Mfg. Co.*, 171 Fed. 83.

Jackson Cushion Spring Co. v. *Adler*, 243 Fed. 386.

Twentieth Century Machinery Co. v. *Loew Mfg. Co.*, 243 Fed. 373.

In harmony with the rule followed by the Sixth Circuit are the decisions of the Patent Office, which in turn are based upon the decisions of the Court of Appeals of the District of Columbia in which the leading cases are:

In re Millet, 96 O. G. 1241, 1901 C. D. 410, 412, 18 App. D. C. 186.

Ex parte Grosselin, 97 O. G. 2977, 1901 C. D. 248.

Ex parte Hammond, 301 O. G. 1051, 1922 C. D. 15.

While it is true that this Court has not definitely and specifically passed upon the concrete question here presented, yet in several cases it has expressed itself in such language that we feel justified in drawing the inference that it has been in sympathy with our contention, or at least is not opposed to it.

General principles will be first discussed and these cases will be considered before discussing the opposing

views of the Courts of Appeals in the different circuits to which allusion has been made above.

It must be remembered that the question brought up by this defense is not that of noninfringement; it is not that of prior patenting; nor of a prior publication; nor is it a question of which of two parties is entitled to a patent as the first inventor, but it is purely and solely *whether the subject matter of a particular patent was* **new** *at the time of the application for it; and whether or not that patent issued in conformity with the statutes; and so is valid as being issued to the first inventor, for something* **new** *and* **not known** *in this country before the patentee's alleged invention of it.*

ARGUMENT

SUMMARY

I. Actual novelty a prerequisite.

II. There is no special virtue or peculiar significance in the claims of a patent by themselves as indicating what was new or unknown at the time of the application.

III. That which is disclosed but not claimed is abandoned or dedicated to the public.

IV. Analogy of interference proceeding in the Patent Office and its long-established practice of considering an earlier disclosure prima facie evidence of earlier invention.

V. The filing of an allowable application is a constructive reduction to practice and evidences a completed invention, even if no actual machine or even model is made.

VI. That which is disclosed in the application for a patent, but not claimed, is presumed to have been known before the applicant's act of invention as set out in the limitation of his claim; this presumption must then necessarily become a conclusion as to any later patent; and this Court has consistently held that no inventor is a true and first inventor, and hence entitled to a patent, if the thing patented or sought to be patented was known to any other before his application.

VII. Analogy of a reissued patent.

VIII. Supreme Court cases clearly supporting petitioner's contention of the invalidity of a later patent when the invention is disclosed in an earlier application even if not claimed.

IX. The third and fourth defenses are separate and distinct and much of the confusion and apparent

diversity of decision is due to improper pleading thereunder, and the introduct on of insufficient evidence to support the pleading.

X. Conclusion.

I

Actual novelty a prerequisite

Section 4886 R. S. provides for the granting of a patent to any person who has invented or discovered any new and useful art, machine, manufacture or composition of matter, or any new and useful improvements thereof, not known or used by others in this country before his invention or discovery thereof, and not patented or described in any printed publication in this or any foreign country before his invention or discovery thereof, or more than two years prior to his application, and not in public use or on sale in this country for more than two years prior to his application, unless the same is proved to have been abandoned.

Section 4920 R. S. provides for proof of certain special defenses *any one of which*, if substantiated, must result in a judgment against the patentee.

The fourth of these defenses is: That he (the patentee) was not the original and *first* inventor, etc.

In this connection it has been held that not only must one be a true inventor—that is to say, he must himself have evolved and not have consciously appropriated the idea from another—but he must have been actually the *first* inventor in all time of the thing patented. In other words, no one may have pre-

ceded him in this country—with or without his knowledge—else he is not entitled to the patent under the statute.

Robinson on Patents, Vol. I, Sec. 58;
Pennock v. *Dialogue*, 2 Peters (27 U. S.), 1, 23.

Section 4920 is in effect a provision for the enforcement of the basic principles of Section 4886. It puts teeth into the latter enactment for the benefit of other inventors and the general public.

Reverting for the moment to Section 4886, we find certain prerequisites without which no patent is valid, and upon proof of the failure of which Section 4920 provides a positive defense.

Section 4886 provides that a valid patent may issue only under condition that the invention or discovery be—

First. *New.*

Second. *Useful.*

Third. Not *known* by others in this country before the applicant's invention or discovery thereof.

Fourth. It must not have been *used* by others in this country before his invention or discovery thereof.

Fifth. It must not have been *patented* in this or any foreign country before his invention or discovery thereof.

Sixth. It must not have been described in any *printed publication* in this or any foreign country before his invention or discovery thereof.

Seventh. It must not have been in public use or on sale for more than two years prior to his application.

The only qualification, or limitation, or exception to all these positive requirements needed to procure a valid patent is that if a prior invention, or discovery equivalent to or identical with the supposed invention existed, but was *proved* to have been *abandoned* and *lost*, such abandoned invention when *so proved* to have been abandoned or lost will not bar the issue.

Thus it will be seen that Congress in following the Constitutional provision as to rewarding those who by their own acts furthered and advanced the useful arts emphasized the necessity of *actual novelty* in the thing patented. For the statute provides that it must not only not have been in public use; or on sale (with or without the consent of the inventor); nor have been patented here or abroad by anyone, including the inventor himself (except as provided in 4887); nor have been described in any printed publication here or abroad; nor used by others in this country; but it *must be actually* **new** and **unknown** by others in this country, unless *proved* to have been abandoned—that is, lost to the public so that the public can get no advantage from it.

Knowledge of a thing may be proved to have existed in different ways—by the oral testimony of those who are familiar with the fact, which is not always reliable, or by other tangible evidence, such as a machine itself properly authenticated, which

then speaks for itself, or by an authenticated written description, especially if accompanied by illustrations or structures clearly disclosing the thing so as to be understandable and capable of being constructed or produced by those skilled in the art, to whom it is disclosed. (*Loom Co.* v. *Higgins*, 105 U. S. 580, 594.)

In this statement we do not confuse a written description which shows *per se* and necessarily by its very existence the fact that what it discloses is "known," with a "*printed publication*" which is a separate and distinct statutory bar in itself.

There probably can be no better evidence that knowledge of a thing existed than such documentary evidence fully setting it forth; and when that document bears upon itself a date impressed as a filing date by a recognized official Department, that date is at least *prima facie* evidence of the existence of the thing described at the time set forth, and therefore that it was then "known."

Such is the situation in connection with an application for patent filed in the Patent Office and bearing the official date of filing as recorded by that Office.

Yet the question here at issue leads us further and is concerned with whether or not the mere disclosure in an application of a device identical with that claimed in a patent issued subsequent to the filing date of the application is of the *same* invention as that set out in the claim. In other words, is an invention an "invention" within the meaning of the

statute unless or until it is *claimed* as such? For it is admitted in this suit that the invention claimed in the patent is disclosed in the earlier filed application, but it is contended that the disclosure without claim indicates that the invention was either not perfected as such, or that the knowledge was not a public knowledge until the patent finally issued, when it was too late to constitute an anticipation.

That an invention is completed when an allowable application is filed, sufficiently disclosing an operative structure so that anyone skilled in the art can reproduce and operate it, will be shown later by reference to decisions of this Court.

That it need not be a perfected invention if it complies with the above conditions; and that the knowledge of it is public when one person is shown to have possessed it; that a constructive reduction to practice is accomplished by the filing of such an application; that the disclosing but not claiming an invention justifies the presumption that what is so disclosed was known and used before, and was dedicated to the public; and that such knowledge possessed by one person is a bar to a subsequent inventor will be also shown by such decisions, later discussed.

In solving this question we must consider what a "discovery" or "invention" is, and whether or not the mere formulation of a claim for it acts as a magic charm to change or give an added value to what existed before in the disclosure of a specification.

II

There is no special virtue or peculiar significance in the claims of a patent by themselves as indicating what was actually new or unknown at the time of the application

A patent application serves three purposes:

First, it points out what is admittedly old and known.

Second, it explains what is *believed* by the applicant to be new, and shows its *operation* and how to *construct* it.

Third, it points out the part *claimed* to be new and claims a *monopoly* of it—that is, the right to exclude others from using it.

Furthermore, the law has determined that if the applicant has failed to positively point out what is old or new, and claim the latter as his invention, his disclosure of anything without claim of novelty therefor is a constructive admission that the part shown but not claimed is not as a fact new.

A claim can not be broader or cover more than, and must be construed by, the description from which it is carved; and usually, if taken by itself, would fail to give the information necessary to enable anyone to utilize the invention sought to be covered by it. It is usually less than the whole inventive thought, because its circumference lies within the area of the description as a whole. *Westinghouse E. & Mfg. Co.* v. *Metropolitan E. Mfg. Co.*, 290 F. 661 at 664, [3, 4].

The greater includes the less; how, then, can a claim which is the less, be of more value, or even of as much value as indicative of what is known, than the whole description which includes it?

A claim is not the inception of an idea or invention—it is the *consequence* of the inception, and follows it—is a part of it—delimits the part of which *monopoly* is sought. It can not exist apart from it or before it. It may be less than the whole; if so, the rest, so far from being destroyed or reduced by the limitation of monopoly to a *part*, is, by the very fact that it is set forth but *not* claimed and monopolized, shown to have been known before the claim was carved from it.

The object of a patent claim is to outline or bound the dimension of the *right* to *exclude*, for the sole purpose of exclusion of that bounded part from public use. By the very exclusion of the part which is new from the public use, by claiming a monopoly of it, the part not so excluded is left open to the public as old. This boundary may or may not be coextensive with the real invention disclosed in the application. If it be so coextensive, the monopoly of the whole invention is complete; if not, the portion lying without the wall is open to whoever wishes to use it—*but not monopolize it*. But as embodied in a patent application, both the claimed and the unclaimed portions constitute a statement that the thing, both as disclosed and as specifically claimed, was known, at least at the time of making the application.

Once so set forth, neither is longer a novelty or is later legally discoverable unless proved to have been lost by abandonment.

It has long been determined that a later patent *claiming* an invention may be taken from its filing

date as an anticipation, or at least as disproving invention by a later applicant though earlier patentee of the same thing, for the reason that the setting forth of the invention in the earlier application by the very fact of its being so set forth establishes the date of its filing as the date on which it was known to another than the later alleged inventor. *Kearney* v. *Lehigh Valley R. Co.*, 32 Fed. 320.

This case was before the Supreme Court in 158 U. S. 461, and although the lower court was reversed, the principle below stated was not questioned. In the Circuit Court it was said (p. 322):

> The date of the application, if it *described* the invention sufficiently, is conclusive evidence that the invention was made prior to such date. (Italics ours.)

In the case of *Automatic Weighing Machine Company* v. *Pneumatic Scale Corp.*, 166 Fed. 288, decided in the Circuit Court of Appeals for the First Circuit, Judge Colt said, *inter alia* (p. 293):

> the law is well settled that the date of a patented invention is at least as early as the date of the application, provided it sufficiently describes the invention to enable those skilled in the art to understand it; and we have found no decision in which this rule is questioned. "Patented inventions always date at least as early as the dates of the execution of the original application therefor, provided the original applications exhibit the inventions with the above-mentioned extent of sufficiency." Walker on Patents (4th Ed.) Sec. 70.

The court further cites and quotes from *Bates* v. *Coe*, 98 U. S. 31, and *Barnes Automatic Sprinkler Co.* v. *Walworth Mfg. Co.*, 60 Fed. 605, to the like effect, noting that the latter case was affirmed on appeal. The court also notes the *Barbed Wire Patent case*, 143 U. S. 275; *Miller* v. *Eagle Mfg. Co.*, 151 U. S. 186; and *Westinghouse* v. *Chartiers Valley Gas Co.*, 43 Fed. 582, as supporting its contention.

But if a claim, which is a mere *incident* and part of a complete antecedent disclosure may be so taken, should not the disclosure itself of the thing—on which disclosure a readable claim in another patent is later based—be equally well taken from its filing date as an anticipation of the later claim for a *feature* or perhaps limited portion of the thing before disclosed? In either case it makes no difference that it may not have been published; that is to say, given to the public or laid open to the public scrutiny until later.

It is difficult to see in what respect the mere *claiming* a *monopoly* of a thing is any more an evidence of prior *knowledge* of the invention than a full but unclaimed disclosure and dedication of the thing.

We repeat that the object of a claim is to place metes and bounds about the *monopoly* of a part or the whole of the thing disclosed. It does not change the *characteristics* of or enlarge or reduce the disclosure itself, for the latter may be much more extensive than the former; nor does it do away with the *fact* of the disclosure nor affect its *date* whether or not made by another than the claimant. An

applicant may be unable to legally claim all of his disclosure because the unclaimed portion may be known, which disclosure, if he could so claim it, would unquestionably be good as of the filing date as proving his prior knowledge. Why, then, should not the rest of the unclaimed disclosure be equally good as of the filing date, merely to prove such knowledge?

If, when a patent application claims less than its whole disclosure, the unclaimed portion is deemed to be old and known; it would be a strange inconsistency to maintain that a later application by another having claims readable upon the disclosure of the first application, would be invalid as to the part claimed in the first (because as to that, the earlier filing date controls) and be valid as to the part disclosed as known but not claimed. Yet that is the logical and necessary outcome of the respondent's argument and the decision of the court below.

III

That which is disclosed but not claimed, is abandoned or dedicated to the public

When an inventor discloses but does not claim an invention in his application, that disclosure is a dedication to the public of everything so disclosed but not claimed, *besides* being an indication of its existence at the time of disclosure. And it may be shown to have existed before that disclosure in the application.

Among the many decisions which are the authority for this statement, which is believed to be too well established to require argument, are the following from this Court:

Keystone Bridge Co. v. *Phœnix Iron Co.*, 95 U. S. 274, 279.

Miller v. *Brass Co.*, 104 U. S. 350, 352.

Mahn v. *Harwood*, 112 U. S. 354, 361.

McClain v. *Ortmayer*, 141 U. S. 419, 423.

Underwood v. *Gerber*, 149 U. S. 224, 231.

Deering v. *Winona Harvester Works*, 155 U. S. 286, 296.

Walker on Patents, 5th Ed., pp. 221 and 251.

Ide v. *Trorlicht, Duncker & Renard Carpet Co.*, 115 Fed. 137, 147.

We contend that the *dedication* or gift is complete and effective *when the application containing it as an unclaimed disclosure is filed, unless* reclaimed or withdrawn within reasonable time by a reissue or amendment claiming it.

Can it be annulled or the gift be rendered abortive through the delays that may occur in the publication of the patent containing the dedication, through no fault of the donor?

Can it be taken away from the public at the will of a later applicant who files his application and claim later than that of him who makes the dedication, even if this patent should issue before that of the real first inventor and dedicator?

And yet, if a later applicant (whose patent, claiming the disclosure as his own, issues later or even earlier) is permitted to monopolize it, the annulment

of the dedication and a misappropriation of the gift is a consequence; and so, not only is the public defrauded in the loss of that which was given it, but the later patentee gets a *monopoly* of something that he did not in fact originate. The mere issue of a patent (doubtless by mistake) on a later application claiming something already dedicated to the public should not be permitted to take from the public that which is already, as it were, held in trust for it by the Patent Office by virtue of the prior disclosure and dedication.

Under our law no one is entitled to a patent unless he has given to the public something that the public has not had before. If some one has been before him in giving by actual or constructive dedication that which he assumes to have invented, he is unable to confer upon the public any consideration for the grant of a patent, which is only the right to exclude from the monopoly. From that which already belongs to it, the public can not be excluded.

The result of dedication by failure to claim is to eventually open the door to everyone to freely use, *but not to exclude others from using* the thing left unclaimed or dedicated. As to when the gift took place, an analogy may be found in the gift of a statue or a building; the unveiling of the one or the dedication exercises of the other does not determine or change the time of the actual gift of the thing unveiled or dedicated.

The act of dedication of an invention, evidenced by the making of a disclosure without claim, pre-

supposes the existence of the thing dedicated at the time of dedication, that is, the filing of the application, not merely at the time of notification of the dedication—that is, of the issue of the patent.

That the date when the public is enabled to utilize the gift may not coincide with the date of the gift does not destroy the gift nor change the fact of it nor the date of donation, nor give another the right in the meantime to appropriate the gift, as would be the case of claiming in a later patent the thing previously given in an application containing a disclosure without claim.

The Patent Office is merely a trustee for the public, holding the instrument of dedication (which is the application containing the unclaimed disclosure) during the pendency of the issuance of the patent. When the patent issues, the public is enabled to fully appropriate the previously made donation which has been in the meantime held in trust for it.

Whether or not the public utilizes or even accepts the gift is beside the point and can not alter the *fact* of the gift nor its date.

So soon as the *patent issues* it merely becomes available *evidence* of the previous act of dedication; and of the prior knowledge of the thing dedicated; but the *fact* of the prior knowledge and the prior dedication is not affected by the date of publication of the patent, both facts necessarily dating at least from the time of the filing of the application setting them out.

It must not be forgotten that we are not dealing with a prior publication or patent, nor with a prior

public use of the invention, which are entirely separate grounds of invalidity; but we are considering an equally vital ground of invalidity, that is the *knowledge* of the thing by the public and its right to it—the "public" being a single person other than the assumed inventor—which *knowledge* deprives the assumed inventor of the essential characteristic of being the *first* inventor of something not before known.

In *McClain* v. *Ortmayer*, 141 U. S. 419 at p. 423, this Court said:

> Nothing is better settled in the law of patents than that the patentee may claim the whole or only a part of his invention, and that if he only describe and claim a part, he is presumed to have abandoned the residue to the public.

Underwood v. *Gerber*, 149 U. S. 224, 230, is also authority for this proposition. It quotes from *Miller* v. *Brass Co.*, 104 U. S. 350, 352, as saying:

> The claim of a specific device or combination, and an omission to claim other devices or combinations apparent on the face of the patent, are, in law, a dedication to the public of that which is not claimed. It is a declara- that that which is not claimed is either not the patentee's invention, or, if his, he dedicates it to the public.

Also from *Mahn* v. *Harwood*, 112 U. S. 354, 360, 361, cited *supra* (p. 16).

In the various cases where the question of who was the first inventor arose we believe it has been almost invariably true that the invention was determined by

the disclosure in the specification and drawings of the application as and when filed; and that where reference has been made in the opinions to "claims" it has been in order to show that the construction placed upon that disclosure is *confirmed* by the specific language of that crystallization of the part of the disclosure sought to be monopolized. This we believe to be essentially what happened in the case of *Sundh Electric Co.* v. *Interborough Rapid Transit Co.*, (2nd Circ.) 198 Fed. 94, decided by Judge Lacombe; for, among other reasons, he cites *Diamond Drill & Machine Co.* v. *Kelly Brothers*, 120 Fed. 295, which distinctly and unqualifiedly says on page 298:

> On the other hand, there can be no question as to the existence of the Henry M. Jackson machine as early as July 16, 1896, when he applied for his first patent, for the diagrams which accompanied the application show it exactly as it now is, except that the jaws are V shaped instead of being serrated. *No claim was made* for the separate operation of the rolls and jaws, *but that is not material.* It was a feature of the machine, and that is enough for our present purposes. (Italics ours.)

In the *Sundh case*, furthermore, Judge Lacombe held certain claims of the earlier issued patent invalid, because that patentee was not the first inventor in view of the *disclosure* of a later patentee whose application was first filed, but which did not, as a matter of fact, *claim* the subject matter of the claims held to be invalid.

IV

Analogy of interference proceeding in the Patent Office, and its long-established practice of considering an earlier disclosure prima facie evidence of ealier invention

In an interference proceeding in the Patent Office, the earliest applicant is considered to be *prima facie* the first inventor, and proof of earlier conception and diligence in reducing to practice is required of a later applicant to overcome the presumption in favor of the first.

This rule has been long established in the Patent Office and has received the approval of the courts. And a claim may be made at any time during the proceeding if there is a sufficient disclosure in the original application.

> *Westinghouse E. & Mfg. Co.* v. *Metropolitan E. Mfg. Co.*, 290 F. 661 at 665.

If such claim prevails it dates back at least to the filing date of the original disclosure, which is rightly assumed to be *prima facie* the date of the invention.

It is difficult to see, then, how a *claim* for an invention, which can only depend upon a disclosure, may be evidence of a prior invention, and date from the filing date of the application as such, unless the disclosure on which the claim is based, and which necessarily shows the thing claimed, is equally evidence of such prior invention or knowledge, as of the date of disclosure.

In the instant case if an interference had been declared between Clifford and Whitford, and Clifford

had made the claim which his disclosure shows he could have done, he would, so far as filing dates show, have been granted the patent as the first inventor. That an interference in fact existed is clear from the admissions. That an interference was not declared, and Clifford given an opportunity to establish his priority of claim as well as of disclosure is no fault of his; and it is submitted that his filing date is to be taken now as proof of his prior knowledge of the invention then disclosed, with as much force as it would have been had the interference been actually declared; not for the purpose of securing to him the monopoly, but to *establish the fact of his prior knowledge.*

Furthermore the custom of the Patent Office for many years has been to give a patent an effective date as of its application for everything disclosed in it whether claimed or not. And while it is true that the Office does not consider a mere application that has been withdrawn or finally abandoned and never issued, an anticipation *as such* of a later application, yet it does, under rule 75, require an applicant who is rejected on a patent, the application of which discloses but does not claim the invention, to show priority to the filing date of the cited patent in order to prevail.

> *Ex parte Hammond and Hammond*, 301 O. G. 1051; 1922 C. D. 15.

That is to say, the Patent Office has, for so long a period as thirty-six years, since the rule was adopted in 1898, held that such an unclaimed disclosure is

prima facie evidence of *prior knowledge* at the date of filing of the thing sought to be covered by the later application, which is sufficient to bar a subsequent patent for it. This practice has been upheld by the Court of Appeals of the District of Columbia and by various Courts of Appeals of the different circuits.

In the case of *In re Millett*, 18 App. D. C., 186 (1901 C. D., 410, at 411), the Court of Appeals, D. C., said (p. 188):

> The application was filed on February 17, 1900. It was rejected by the primary examiner in an elaborate opinion on reference to a patent issued to one Frederick Lane on February 20, 1900, *three days after the filing of the application of the appellants, but which patent had been applied for by Lane upwards of two years before.* It was contended by the appellants that their application should not be rejected by reference to a patent issued after the filing of their application, in which their alleged invention, if shown at all, was not claimed, and only appeared in the drawing annexed to the patent; and further that this drawing did not show the invention of the appellants. This contention the primary examiner did not sustain; and his ruling was affirmed on appeal both by the board of examiners-in-chief and the Commissioner of Patents. And from the decision of the Commissioner the case has been brought to this court by appeal.
>
> With reference to the first branch of the contention of the appellants, we are satisfied that the tribunals of the Patent Office were entirely

right in the conclusion reached by them. If the drawings annexed to the Lane patent fully and satisfactorily show the device claimed by the appellants, and if these drawings were the same that were filed with Lane's application in the first instance—and we must assume that they were the same until the contrary is made to appear—it is very plain that they show anticipation of the invention of the appellants. It is of no consequence that Lane does not include this device among the *claims* of his own invention. His failure so to do simply implies either that he *abandoned it to the public, or that he regarded it as already well known to the art.* **It does not help the appellants in any manner that he does not claim it.**

It is not the fact that a patent was issued to Lane upon his application which constitutes anticipation in this case. Although that patent was issued in so short a time after the application of the appellants that, in view of the usual and necessary course of business in the Patent Office, we might fairly assume that the facts which justified its issue had been satisfactorily shown long before the advent of the appellants to the Office, yet the patent of itself would not be sufficient to show anticipation by Lane of the device of the appellants. *But the fact which shows such anticipation is the state of the art at the time as evidenced by the drawings and specifications of Lane's application.* For it is the condition of the art at the time at which an alleged invention is made, and not the existence of a patent, which in this connection is no more than *evidence* of the state of the art,

> which determines whether an invention claimed is actually an invention or not under the patent law. **And this state of the art may be shown by a printed book, a periodical publication, a newspaper, anything in fact which can be regarded in law as reasonably sufficient proof of the fact. This we understand to be the rule deduced from reason and the authorities.** (Emphasis ours.)

We believe this to enunciate the correct principle, in harmony with both law and logic. This takes us back to the provision in Section 4886 R. S., that a valid patent can issue only for what is "New" and not before "Known," and the language of this Court in *Bate Refrigerating Co.* v. *Sulzberger*, 157 U. S. 1, 34 seems entirely in point here, although referring to the interpretation of section 4887:

> If section 4887 of the Revised Statutes is so worded as to express clearly the intention of Congress, the court must give effect to that intention. But even if the statute be not so explicit as to preclude construction; if upon applying to it the established rules of interpretation; if looking at it in the light of previous legislation on the subject; if there be reasonable ground for adopting either one of two constructions; this court, without departing from sound principle, may well adopt that construction which is in harmony with the *settled practice of the executive branch of the government, and with the course of judicial decisions in the Circuit Courts of the United States* * * * . (Italics ours.)

V

The filing of an allowable application is a constructive reduction to practice and evidences a completed invention, even if no actual machine or even model is made

That an allowable application duly filed constitutes for all purposes of the patent laws an actual reduction to practice or is equivalent thereto, has been consistently held by the Patent Office, the Court of Appeals of the District of Columbia, the various Circuit Courts of Appeals; and that it is approved by this Court it is confidently asserted the following cases will show:

> *Automatic Weighing Machine Co.* v. *Pneumatic Scale Corp.* (1st Cir.), 166 Fed. 288.
>
> *Computing Scale Co.* v. *Standard Computing Scale Co., Ltd.* (6th Cir.), 195 Fed. 508.
>
> *Sundh Electric Co.* v. *Interborough Rapid Transit Co.* (2d Cir.), 198 Fed. 94.
>
> *Westinghouse Machine Co.* v. *General Electric Co.*, 199 Fed. 907; affirmed (2d Cir.) 207 Fed. 75.
>
> *Telephone Cases*, 126 U. S., 536.

In the *Sundh case, supra,* Judge Lacombe said (p. 97):

> It is further settled by authority that, even though he may not build a machine or a model, he reduces his invention to practice when he files with the Patent Office an application containing specifications so careful, exact, and complete that a man skilled in the art can, by following their instructions, produce a machine which will meet the descrip-

tion and produce the results which the application asserts it will. *Bates* v. *Coe*, 98 U. S. 31, 25 L. Ed. 68; *Porter* v. *Louden*, 23 Wash. Law Rep. 689.

VI

That which is disclosed in the application for a patent, but not claimed, is presumed to have been known before the applicant's act of invention as set out in the limitation of his claim; this presumption must then necessarily become a conclusion as to any later patent; and this Court has consistently held that no inventor is a true and first inventor, and hence entitled to a patent, if the thing patented or sought to be patented was known to any other before his application.

In the case of *Mahn* v. *Harwood*, 112 U. S. 354, 361, this Court said:

> The presumption is, and such is generally the fact, that what is not claimed was not invented by the patentee, but *was known and used before he made his invention*. But, whether so or not, his own act has made it public property if it was not so before. The patent itself, as soon as it is issued, is the *evidence* of this. (Italics ours.)

We take this to mean that the disclosure of an idea in the description of an application for a patent, when not claimed by the applicant, is presumptive indication that that idea was *known* and used *before* his own claimed invention—that is to say, before the filing of his application. But whether so or not, it necessarily evidences his own knowledge of the thing disclosed, at least at the time of his application. If it was so known and used before his application it can not be the subject of a new

inventive act by himself, and certainly not by any *later* inventor, for it was already in existence, and hence can not be thereafter created.

The patent, when issued, containing the unclaimed disclosure is *evidence* proving this, but the *fact* of the prior existence of the old idea remains the same even if the patent which evidences it never issued. The issued patent merely makes the fact *available* in and as *evidence*, and as such evidence it indicates that when the *application was filed the fact was known to others.* That is to say, that it was known to the applicant making the disclosure; to the attorney if there was one who acted for the applicant; to the officials of the Patent Office acting upon the application, and presumptively to *others of the general public even before* his *application was filed;* the making of the disclosure in the application even if without the claims of monopoly for it—being presumptive evidence of that fact, and the issue of the patent later *making that evidence available in form of proof.* And this disclosure need not be such a one as constitutes a perfected and complete embodiment of the idea in detail.

In brief, therefore, since an allowable application, especially if that application afterwards ripens into a patent, is not an abandonment in the sense of a thing lost or forsaken, and more especially if that application by disclosure and failure to claim is either evidence that the thing was before known or is actually a dedication to the public—the thing

therein disclosed can not, under the ruling of the executive branch of the Government, the ordinary interpretation of the words of the statute, and the decisions of the courts, be considered "*new*" or "*unknown*" so as to sustain a later patent for the thing so disclosed, issuing as a consequence of and based upon a later application. (*Bate Refrigerating Co.* v. *Sulzberger, supra*, page 25.)

We repeat this is not a question of which of two rival inventors is entitled to a patent. *It is solely a question of whether or not one of them is entitled to a patent* **at all,** *because not having complied with the statutory requirements of being the* **first** *inventor of something not before* **known.**

We can not harmonize the great mass of decisions with the contention that an idea, though fully described in an application, is not "invented" until claimed, and that the formulation of a claim, although it does not in fact add anything to the knowledge of the idea already existing (although it may crystallize a portion of it in precise language), yet works some mysterious change or charm so as to make that legally known for the first time which was in fact actually known long before. For the *statute does not say "not before 'invented'"* or "*claimed,*" but "not before '*known.*'" The object of the statute is to reward a creator of that which was not before; if the real creator has waived his reward by failure to claim his creation, that should not furnish basis for giving the reward to one who is not in fact the creator. That which exists can not again be created.

This Court has said in the *Telephone cases*, 126 U. S. 1, at page 536:

> The law does not require that a discoverer or inventor, in order to get a patent for a process, must have succeeded in bringing his art to the highest degree of perfection. It is enough if he describes his method with sufficient clearness and precision to enable those skilled in the matter to understand what the process is, and if he points out some practicable way of putting it into operation.

The same rule, of course, applies to a patent for a machine. *Sundh Electric Co.* v. *Interborough Rapid Transit Co.*, 198 Fed. 94.

It can not be doubted that "a practicable way of putting it into operation" may be adequately disclosed in a written description, especially when taken in connection with a drawing of a patent, even if it be not crystallized in the form of a claim for a specific structure. *McClain* v. *Ortmayer, supra.*

It is equally clear that the mere subsequent *issuance of a patent in printed form* containing a specific claim of monopoly does not change the character or completeness of an unclaimed disclosure in the application on which the patent is based. It gives no greater or clearer information; it does not constitute more conclusive proof of the fact of prior existence of knowledge of the idea disclosed; it merely makes the patent itself *evidence* of the existence of that knowledge as of its date, as a *patent* or *printed publication;* its value as evidence of presumptive prior knowledge of the unclaimed dis-

closure by another than a later applicant is unchanged and is not increased by its publication, and that prior knowledge dates at least from the filing date when the disclosure was made—that is, its presumptive reduction to practice by the filing of the application.

The Corn Planter Patent case (*Brown* v. *Guild*), (23 Wall. 90 U. S. 181), (Post, page 41), clearly shows that even a rejected and abandoned application may have "a bearing on the question of prior invention or discovery."

And in *Northwestern Fire Extinguisher Co.* v. *Philadelphia Fire Extinguisher Co.*, 1 Bann. & Ard. 177, Judge McKennan said, at p. 186:

> But it does not follow that *rejected* specifications and drawings are, under all circumstances, inadmissible as evidence. By themselves they are inconsequential, but when the inventor's idea is perfected by a practical adaptation of it, in the form of mechanism, *they are valuable guides in ascertaining the date of the invention*, the design of the inventor, and the principle, intended functions, and mode of operation of his mechanism, and they must, therefore, necessarily be considered in connection with it. (Italics ours.)

So since the mere *filing* of an allowable application clearly disclosing an operative device is a reduction to practice and pertinent on all questions of novelty, it is a consequence that when a patent based thereon actually issues—thus proving its allowability—the application therefor, properly presented and proved,

is competent to establish the date of the invention and the existence of knowledge of it as of the date of filing.

This must be the case whether the patent be the basis of a suit for infringement or one relied upon in defense of such suit. In the latter case, of course, it must be properly pleaded as showing such prior *knowledge* and invention and not as a *patent* or *printed publication*, which, of course, it is not.

In *Barnes Automatic Sprinkler Co.* v. *Walworth Mfg. Co.*, 60 Fed. 605, at 606, the Circuit Court of Appeals for the Seventh Circuit, referring to the opinion of the court below (51 Fed. 88) holding—

> The public notice of the device must be carried back to the date of filing the application,

harmonizes that statement with the text of *Bates* v. *Coe, supra*, and says:

> This rule, it is clear, can be applicable only to the one defense "that the improvement *had been patented or described in some printed publication* prior to the supposed invention." In order to come under the provision of the statute which authorizes *that defense* the patent or publication relied on must be prior in point of time to the patent in suit. And it is perhaps true in respect to any form of defense that if a patent is referred to simply by number and date, without averment of earlier invention and use, *or of the date of the application upon which it was granted*, evidence of those particulars would not be competent, because not within the issue. *But when the*

answer is framed, like this one, to show, not a prior patent or publication, but that the grantee of the patent in suit was not, and that the patentee of a patent of later date, issued upon an earlier application, was the first inventor, it is an anomalous proposition that the fact which the statute declares to be a defense can not be established by any proof which, under the ordinary rules of evidence, is admissible. In the case of *Western Electric Co.* v. *Sperry Electric Co.*, 9 U. S. App. —, 8 C. C. A. 129; 59 Fed. 295, where this court held that, when two patents for one invention had been issued, the owner of the second may sue the owner of the first, or those operating under it, without having obtained relief under Section 4918 of the Federal Revised Statutes, it is said:

"Whether one patentee or the other, when he makes or uses the invention, is an infringer or trespasser *depends upon the inquiry whether the one or the other was the first inventor, and not whether he was the first to obtain a patent;* and this inquiry may as well be made in the ordinary suit in equity as in the proceeding provided by the statute."

If the parties in that case had been reversed, and the Western Electric Company has been made respondent to a bill by the Sperry Electric Company, either in a suit of the ordinary form in equity or under the statute, its defense would have been that its patent, though later in date, *had been granted upon the earlier application to the first inventor;* and yet, if the rule quoted is to have the broad application contended for, the defense could not

> have been admitted, and the other party would necessarily have prevailed. *The decision in Bates* v. *Coe involves no such absurdity as that in respect to a single dispute a party may have a cause of action against his adversary, and yet, if made a respondent, have no defense. It may be granted, in the very terms of that opinion, "that the patent or publication can only have the effect as evidence that is given the same by the statute," and yet, when the issue of priority of invention is presented, other facts necessary or proper for the determination of that issue may be proved.* (Italics ours.)

In the court below (51 Fed. 88 at 90, 91), in the *Barnes* case just cited the trial Judge said:

> While the Talcott patent granted January 31, 1882, but for which application was filed in the Patent Office April 8, 1879—and the public notice of the device must be carried back to the date of filing the *application*—clearly shows and describes, etc.

And again:

> I am therefore very clear that the Talcott patent of January 31, 1882, which relates back to the time it was *applied* for in April, 1879, clearly anticipates the fourth and fifth claims of the complainant's patent. (Italics ours.)

It is to be noted that this ruling was upheld by the Circuit Court of Appeals, and that it was made in a suit where the disclosed invention of a patent of a later date and number but earlier application was set up as a matter of defense.

Also in *Westinghouse* v. *Chartiers Valley Gas Co.*, 43 Fed. 582, which was a case where suit was brought on a patent, and an application filed earlier than the application of the patent in suit was introduced to show that the patentee was not the original and first inventor, and that his patent was not for a new invention, the court said (page 588):

> The plaintiffs contend that the Nicholson application is inadmissible as evidence. Is this a sound position? That a rejected or withdrawn application is not a *prior publication*, within the meaning of the statute, nor of itself a bar to a patent to an independent inventor, is settled. *Lyman V. & R. Co.* v. *Lalor*, 12 Blatchf. 303; *Northwestern Fire Ex. Co.* v. *Philadelphia Fire Ex. Co.*, 6 O. G. 34; *The Corn Planter Patent*, 23 Wall. 181. *But it by no means follows that Nicholson's application is not to be received for any purpose.* It has neither been withdrawn nor rejected. Abandonment by him can not be alleged. In the interference proceeding he was awarded priority of invention over Verner. That he was prior to Verner was indisputable under the proofs before the court. The utility of the device in question was demonstrated. It would then be most extraordinary if Nicholson's application could not be shown as affecting Verner's title to the monopoly here set up against the defendant and the public. I think the cases of *Northwestern Fire Ex. Co.* v. *Philadelphia Fire Ex. Co.*, *supra*, and the *Corn Planter Patent*, *supra*, *are direct authorities to show that the Nicholson application*

> *is competent* evidence as bearing on the question whether Verner was in fact the original and first inventor of the thing alleged to be within the first and second claims of his patent. (Italics ours.)

The case of *Pennock* v. *Dialogue*, 2 Peters (27 U.S.), 1, at p. 23, contains a statement that seems applicable to the point in issue. This Court, by Justice Story, said, referring to the statute:

> It gives the right to the first and true inventor, and to him only; if *known* or used, before his supposed discovery, he is not the first, although he may be a true inventor * * *. (Italics ours.)

It will be observed that it is not necessary that the invention shall have been actually *used* before the later alleged invention; the knowledge is sufficient; the alternative form is expressed, *known, or* used.

If, therefore, the idea of means was known (and that fact is made apparent by a prior appiication) that knowledge, even if merely disclosed and unclaimed (hence indeed abandoned so far as the claim of monopoly is concerned, in the sense of dedicated to the public), is none the less a prior *knowledge*. A patent which issues after another patent (but was first applied for) and contains an unclaimed disclosure of subject matter claimed in the later patent, clearly shows on its face that the subject matter disclosed was known to another at the time of the filing date of the earlier appication; it is the date of the knowledge that controls, not the date when the knowledge is or may be *proved* in evidence by introduction of the application of the patent containing the disclosure.

If by disclosure in an application, without claim, an inventor abandons or dedicates his invention to the public (and this is well settled, as we have shown above, page 15), that abandonment or dedication occurred at the time of the disclosure—that is to say, when this application was filed—the fact of abandonment or dedication presupposes the existence of the thing abandoned or dedicated at the time. The later publication of the disclosure in an issued patent is merely evidence of the fact. (*Mahn* v. *Harwood*, *supra*, p. 27.)

In *Gayler* v. *Wilder*, 10 How. (51 U.S.) 476, the Court held, in effect, that an abandonment or forsaking which resulted in *permanent loss* to the public of an idea or structure, left the field open to a subsequent original inventor of the same idea. Here, however, the Court said (p. 498):

> Yet, if it (the invention) was the same with Fitzgerald's (the subsequent patentee), the latter would not upon such grounds be entitled to a patent, *provided Connor's safe and its mode of construction were still in the memory of Connor before they were recalled by Fitzgerald's patent.* (Quoted in *Coffin* v. *Ogden*, 18 Wall. 120, at 125.) (Italics and parentheses ours.)

In other words, the loss and disappearance of an invention from the memory of everyone must have been complete, or else that invention will become a bar to a subsequent patent. But this is very different from a deliberate abandonment by dedication by disclosure to the public, in an application disclosing

the invention containing claims based thereon, which afterward mature into a patent. Indeed, the court proceeds to say that under the circumstances of the case then at issue—

> There was no existing and living knowledge of this improvement, or of its former use, at the time he (the patentee) made the discovery.

Of course, a disclosure in a patent application ultimately issuing as a patent, indicates an existing and living knowledge of the thing disclosed, which upon issue becomes general. So it seems to us that this case supports our contention that an actual prior invention, even, and especially if abandoned, in the sense of dedicated to the public by an unclaimed disclosure in a patent application afterwards issuing, is a bar—not as a prior *patent*, but as showing existing prior *knowledge*—to a subsequent patent for the same idea of means.

In this case also the dissenting opinions of Justices McLean and Daniel go even farther than we go, in this respect that they maintained that mere prior knowledge, *whether forgotten or not*, is a bar to a subsequent patent for the same thing on the ground that a thing once known can not thereafter be invented.

In *Seymour* v. *Osborne*, 11 Wall. (78 U. S.) 516, at p. 552, and in *Whitely* v. *Swayne*, 7 Wall. (74 U. S.) 685, at p. 687, the Court held:

> For he is the first inventor, and entitled to the patent, who, being an original discoverer, has first perfected and adapted the invention to actual use.

It is repeated that a full disclosure in an allowable application, in such form and completeness as would allow one skilled in the art to actually construct the machine disclosed, is a reduction to practice of the invention as of the date of filing the application. (See *Telephone cases, supra*, p. 26.) That an idea or structure may be disclosed in such detail by a specification and drawing as to enable one skilled in the art to construct it, without its being set within the bounds of a "claim," seems self-evident.

The one, therefore, who first thus sets it forth is, under the cases cited, clearly the first inventor, and if instead of constructively dedicating it to the public by disclosure without claim he had claimed it, it is to be presumed that the claim would have been allowed unless, indeed, it were so old and well known as to present no novelty or invention. But in that case it would even more positively indicate that anyone filing a later application for that thing so disclosed could not be the first inventor of that which was known before.

That only a part of the disclosure is monopolized by a specific claim does not render the rest any the less a perfected invention (if the disclosure is sufficiently clear to those skilled in the art), even if the invention be not brought to the highest state of perfection; nor is its originator any the less the first inventor. If this be true, no later inventor can be the "first" inventor, and entitled to a patent. A subsequently issued patent on the first inventor's

application containing the disclosure, is evidence of that prior invention, and establishes the fact—not of a prior publication, for it may have been later published, but of a preexisting *knowledge* of the thing later published.

In *Bates* v. *Coe*, 98 U. S. 31, the issue turned on the sufficiency of a prior *patent* as an anticipation in its capacity as a *prior patent* or *printed publication*, and while the defense that the "complainant is not the original and first inventor" was pleaded, yet the defense of such prior invention or use did not include the offer of sufficiently convincing evidence to support it, and the Court really decided the case on the defense of prior *patent* or *printed publication*, holding that as to that defense it was not proved so as to overcome the *prima facie* presumption of the later patent's validity.

It certainly is straining the language of this decision to construe it into a statement that the defense of prior *knowledge* of an invention which rests upon a disclosure (unclaimed) in an application for patent afterwards issued, is not sustained by proof that the application containing that disclosure was filed more than two years before the filing date of the patent alleged to be infringed.

The language of the decision leaves us entirely free to maintain that if the *pleading* in that case had specified prior *knowledge* by another as shown by a disclosure in a complete and allowable application duly filed, even if unclaimed, and had proved the allegation by duly offering the application showing such

disclosure in evidence, that defense would have been sustained. In other words, the statement (pp. 33, 34):

> Neither the defendant in an action at law nor a respondent in an equity suit can be permitted to prove that the invention described in the prior patent, or the invention described in the printed publication, was made prior to the date of such patent or printed publication, for the reason that the *patent* or *publication* can only have the effect as evidence that is given to the same by the act of Congress. (Italics ours.)

merely indicates that the Court used this language with reference only to the defense of prior *patent* or *publication;* the question of the sufficiency of a disclosure in a prior application as evidence of prior knowledge on the part of others, not having been raised and not having been considered by the Court.

The early case of the *Corn Planter Patent* (*Brown* v. *Guild*), 23 Wall. (90 U. S.) 181, is of especial interest.

In this case a device had been experimented with, and, so far as further actual use, had been abandoned and lost. Moreover, as the Court found (p. 210):

> It may have presented one or two ideas in advance of other machines, but it can hardly be said to anticipate the machine which we have described as Brown's.

That is to say, *it did not disclose the same invention.* Further, the application for patent on the device had been voluntarily withdrawn or proved to have been abandoned from further prosecution. So

the device did not only not disclose the same idea as the patent which it was sought to overthrow by it, but the device itself was abandoned or forsaken and the application for a patent therefor voluntarily withdrawn and never renewed.

Clearly, here we have the case of a mere incomplete abandoned experiment not even disclosing the same idea as that of the patent it was sought to anticipate by it, and which never rose to the dignity of invention. It naturally could not be considered an anticipation, even as a matter of prior knowledge and use.

But even here the Court distinguished between what may constitute an anticipation as a prior *patent* or *printed* publication and an anticipation because of prior *knowledge*, and says (p. 211):

> But a mere application for a patent is not mentioned as *such a bar* (a patent or a "description in a printed publication"). *It can* only have a bearing on the question of prior invention or discovery. (Italics and parentheses ours.)

By this language the Court, by limiting the bearing of the application to the exception stated, clearly gives basis for the inference that an application making a sufficient disclosure of an anticipating nature *could* have a bearing on the question of prior invention or discovery—that is, because of prior knowledge and disclosure through a mere application for patent, even though it never issued.

Moreover, as we have said in this case, the patent application itself was abandoned from further prose-

cution and forsaken, which is a very different situation from that where disclosure is made in an application which *afterward matures into a patent*, even though the disclosure is not fully claimed, and is so constructively dedicated to the public.

On the question of what is and what is not an abandoned experiment a moment's digression may here be permitted to cite the case of *Buser* v. *Novelty Tufting Machine Co.* (C. C. A., 6th Cir.), 151 Fed. 478, 492.

Here, after discussion of many cases, the court concluded that there is a decided difference between an "abandoned *experiment*," which *is* not a valid instance of anticipatory prior knowledge or use, and an abandoned *invention*, which *is* as much an anticipation which negatives novelty in a later patent as if it had not been abandoned, citing *Gayler* v. *Wilder*, 10 How. (51 U. S.) 481, 496, as authority for the proposition. See also Walker on Patents, 5th Ed., Sec. 63, p. 221, and cases cited.

The principle is that an experiment is merely embryonic and incomplete until reduced to practice in a working device, or an allowable (not necessarily claimed) patent application. But when so reduced to practice it is immaterial how little it may have been known or used; quoting from *Coffin* v. *Ogden*, 18 Wall. (85 U. S.) 120, at 124:

> The prior *knowledge* and use by a single person is sufficient. The number is immaterial. (Italics ours.)

Certainly, an invention which has been fully described and illustrated in an allowable application, is therefore not a mere experiment; and where the patent has subsequently issued (even where the part disclosed is not claimed) it can not be said to be an "abandoned" or "forgotten invention" even if not thereafter actually utilized.

It follows, therefore, under the cases cited, that such a disclosed invention constitutes an anticipation (as showing prior knowledge) of any later application, and further must constitute such anticipation from the date when it became complete; but as the filing of an application is a constructive reduction to practice, the invention becomes complete as of the date of filing; hence the anticipation or prior knowledge is established as of that date. It follows further that under the ruling of *Mahn* v. *Harwood, supra*, the patent itself when issued is *evidence* of that fact.

It is true that a mere written description of an idea or device illustrated by drawings is not a "publication" which will of itself act as a bar to a later application for patent (though if embodied in an operative structure it may be evidence of prior knowledge in another: *Loom Co.* v. *Higgins*, 105 U. S. 580 at 594). But when published in a patent it becomes as much open or given to the public as a *claimed* disclosure. If the latter acts as a bar from its filing date—even though issued later—why should not the unclaimed disclosure in the same published patent that is equally open to the public? In what respect does the *claiming* add to public knowledge or

enlarge the disclosure? The unclaimed portion is not an abandoned experiment—it is a constructive reduction to practice. An actual practical machine once made and known to others is a bar even if abandoned, under the decisions, and acts from its date as such—how much more a disclosure in a patent subsequently issued and hence not abandoned?

Under the statute for the third defense a mere printed publication (not a patent), which contains no claim but clearly discloses an invention in such form that one skilled in the art can construct it, is a valid anticipation of a later patent, if early enough. From this it is evident that it is not the crystallization of the inventive thought into the expression of a "*claim*" or the bounding a portion of it in the terms of a "claim" that makes a prior patent or publication an anticipation or reference to show the preexistence of knowledge of the thing invented, *but it is the sufficient disclosure of the subject matter which may or may not be actually bounded by a claim.*

By analogy an equal disclosure sufficiently proven to have existed before, should satisfy the requirements to establish the fourth defense of prior *knowledge.* If Clifford had testified that the structure disclosed in the application was known to him at the time of the filing, and had produced the structure as confirmatory evidence, and it was not "proved" to have been abandoned, in the sense of forsaken, that testimony should have established the defense of prior knowledge in view of *Gayler* v. *Wilder, supra.*

It is difficult to see how the application itself, which is in itself evidence both of the thing known and the date of the knowledge, is not as good or better evidence than the personal recollection of Clifford.

In the *Barbed Wire case*, 143 U. S. 275, this Court clearly concedes by inference that an unpatented device, if clearly disclosing the alleged invention of a later patent, may, if the proof be clear, satisfactory, and beyond a reasonable doubt, be a complete anticipation of a later patent, as showing that the thing patented existed and was known before, and hence that the patent was not for a *new* invention, *not before known*, and that therefore the patentee was not the first inventor.

Our comment on this case is that, as such is the law, what better proof of the preexistence of knowledge of an invention can be given than an application admittedly disclosing it, which, of course, speaks from its date of filing of the fact of its existence at that date?

If an unpatented device may be sufficient evidence of prior knowledge of an invention, a recorded disclosure though unclaimed—especially if, instead of being abandoned, it later materialized into a patent—is as good or better.

In the case at bar the identity of the inventions is conceded; the fact and date of the earlier disclosure are proved by the best possible evidence—that is, the production of the document itself verified by the Patent Office.

VII

Analogy of a reissued patent

A patent may be reissued to cover the invention actually disclosed but not adequately claimed in the original specification and drawings of an issued patent. When so reissued the date of invention of what is disclosed but not claimed remains the same as of the date of filing the original application containing the mere disclosure on all questions of novelty, even though then not adequately or properly claimed. *Grant* v. *Raymond*, 6 Peters (31 U. S.) 218, at 243.

Why, then, should not an unclaimed disclosure in an original application though not reissued be equally good as determinative of such questions of novelty?

VIII

Supreme Court cases clearly supporting petitioner's contention of the invalidity of a later patent when the invention is disclosed in an earlier application, even if not claimed

In *Brown* v. *Davis*, 116 U. S. 237, a patent to a later applicant was held to be limited, and, so far as it covered the device illustrated and described in a prior application (which was abandoned and never issued) could not lawfully have been granted, and therefore was invalid because anticipated by the prior application. The Court says (p. 250):

> In order to determine what construction ought to be given to the other claims of the reissue, it is necessary to consider an invention made by one Powers * * * in 1862, the

> invention of Davis being carried back only to September, 1866. * * * He (Powers) worked out a plan and made a model of it, and applied for a patent November 10, 1862. The patent was ordered to issue December 6, 1862, but was never issued. The reason is not stated. The specification filed states * * *. The method described and shown in the drawings is * * *. The description states * * *. The claim covers * * *, etc.

This invention was embodied in an actual device which worked perfectly, and the Court held that it was "a completed invention," and that in view of its disclosure the limitation and invalidity of the Davis claims were established. It is repeated that this patent never even issued, and it is to be noted that the Court constantly refers to the *disclosure* in an unissued patent as the ground for anticipation, and while an actual device was made, that fact merely confirms the fact of prior invention, since, as we have shown, the filing of the application was in itself a constructive reduction to practice, sufficient in itself to show prior knowledge of the invention and that it was not merely an abandoned and forsaken experiment, and so this Court evidently considered it.

In *Yale Lock Company* v. *Greenleaf*, 117 U. S. 554, at 557, a patent was held to be anticipated by a rejected or abandoned application, the specification of which disclosed the so-called invention of the patent, on the ground that what the patentee *thought* had never

been done before, had, as a matter of fact, been done by the device of the specification; that is to say, the patent was void because it was not for a **"new"** or not previously **"unknown"** invention, the fact of the prior knowledge being shown by the prior application, even though it had never passed to issue as a patent.

In *Pope Mfg. Co.* v. *Gormully Mfg. Co.* (No. 2), 144 U. S. 238, 244, the Court says:

> There was also a patent issued to one Smith upon the same day the Peters patent (the patent in suit) was issued, namely, November 20, 1877, but upon an *application* filed September 1, 1877, prior to Peters' application, and therefore, *anticipating* Peters' patent. (Italics and parenthesis ours.)

We submit that this case plainly and expressly recognizes the principle that a later patent may be anticipated by another *application* earlier filed. (The numbers of the two patents show which of the two patents was earlier granted—see *Underwood* v. *Gerber*, 37 Fed. 682, affirmed in 149 U. S. 224.)

That the device of the anticipating application was not entirely the same as that of the patent held to be anticipated by it, and so was not considered to invalidate it, is beside the point and does not detract from the plain pronouncement of the Court that the *application as such anticipated the patent*, and was, of course, effective as of its filing date.

In *Olin* v. *Timken*, 155 U. S. 141, this Court reversed a decision of the court below; and held a patent invalid, on the ground, among others, that the applica-

tion for it was subsequent to the invention by another, as shown in the specification and drawing of an application filed subsequently, but disclosing the invention, with evidence that it was made earlier.

The Court said, at p. 154:

> He (the earlier inventor) applied for a patent shortly after the allowance of the Timken patent (the patent in suit) and his application was rejected (that is, the claims were refused), but the specification and drawing of this application are given in the record, and show clearly the invention claimed in this suit. (Parentheses ours.)

Roberts v. *Ryer*, 1 Otto (91 U. S.) 150.

This is a case where a patent was held void because anticipated by a patent issued later but applied for earlier, *showing* but not *claiming* the same invention. On page 155—

> Such being the patent, we now proceed to consider the defense; which is, that the invention patented had been anticipated by Asel S. Lyman and others. Sanford, the patentee, does not carry his invention back of the summer of 1855 (issued Nov. 13, 1855), when, it perhaps sufficiently appears, his application was filed.
>
> On the 21st of September, 1854, Lyman filed his application for a patent for "a new and improved mode of cooling, drying, and disinfecting air for ventilators and refrigerators." * * *
>
> (P. 158). Lyman had conceived the idea of his invention as early as August 19, 1852, for

he then filed his caveat in the Patent Office. His ideas were, at that time, undoubtedly crude; but it is clear that he kept steadily at his work. * * *

As has been seen, Lyman, after having, as he thought, perfected his invention, applied for his patent September 21, 1854. Technical objections were made; and on the 19th of April, 1855, he withdrew his application. He, however, still kept up his correspondence with the department, vigorously pushing his claim. On the 28th of November, 1855, only 13 days after the grant of the patent to Sanford, he filed a new application, and, in doing so, distinctly connected it with the first. There certainly is no material difference between the old and the new. On the 25th of March, 1856, a patent was in due form issued to him.

Down to this time it is impossible to discover any material difference between the two patented inventions. Clearly Lyman was the oldest inventor, and his patent was consequently the best, although that of Sanford antedated his. His last application was rejected December 5th, because it had been anticipated by Sanford; but *afterwards the subject was reconsidered, and a patent issued to him.* * * *.

(P. 159.) Clearly, we think, therefore, the invention of Sanford was anticipated by Lyman; and his patent is, on that account, void. * * *

We think the evidence establishes, beyond all question, that Lyman (the first applicant but later patentee), and not Sanford, was the original and first inventor of all there is of this improvement. (Italics and parenthesis ours.)

The case of *Cochran* v. *Zimmerman*, 53 Fed. 801, while not a decision of this Court, is of interest as expressing what we believe to be the principle of the cases just cited, and because the opinion was rendered by Chief Justice Taft, then sitting as Circuit Judge.

This was a case of a reissued patent granted on July 10, 1888. The court held that it was void because anticipated, in that the same invention was disclosed (it does not appear that it was claimed) in a patent subsequently issued on August 28, 1888, but *applied* for on February 7, 1887; that is to say, five months before the application for the original patent on which the reissue was granted.

IX

The third and fourth defenses are separate and distinct, and much of the confusion and apparent diversity of decision is due to improper pleading thereunder, and the introduction of insufficient evidence to support the pleading

Much of the confusion seems to have arisen because of improper pleading—or failure of proof to support the pleading.

Of course if a patent which is later in date is cited against an earlier patent *as an anticipating patent*, in the effort to prove anticipation and invalidity of the earlier patent under the third defense—that is, of prior *patenting*—it will not avail, even though the application may disclose the same subject matter, because it manifestly is not an earlier issued patent;

but that the disclosure in an earlier application showing the same subject matter is, when the patent issues, available as evidence, showing conclusively the fact of the existence of prior *knowledge* of the subject matter, is another question—we think can not be denied, and is not denied either by this Court or by other courts than those of the Second and Seventh Circuits.

In most, if not all, of the cases in the lower courts, except those of the Second and Seventh Circuits referred to in the beginning of this brief, and certainly in this Court, this distinction is directly or inferentially recognized, and we find no instance other than those mentioned where the Court has refused consideration or denied the competency of a sufficiently disclosing prior application where properly pleaded as a ground for establishing the fourth defense.

In the case of *Sundh Electric Co.* v. *Interborough Rapid Transit Co., supra*, decided in the Circuit Court of Appeals for the Second Circuit, Judge Lacombe says, at page 96:

> The nature of the defense of prior art is succinctly expressed in section 4920, U. S. R. S., subdivision third:
>
> "That it (the device of the patent) has been patented or described in some printed publication prior to his (the patentee's) invention or discovery thereof, or more than two years prior to his application for a patent therefor."
>
> Ihlder's device was certainly not patented before Sundh's invention, which was com-

pleted by reduction to practice on the day the latter filed his application. Nor was Ihlder's application, although it completed his invention by reducing it to practice on the day such application was filed, a "publication" within the meaning of the statute, because it remained unpublished in the secret records of the Patent Office until after Sundh's application had been filed. The Ihlder patent, therefore, was no part of the prior art.

It is contended, however, that the court erred in not sustaining a separate defense based upon the Ihlder patent, viz; the defense enumerated in the fourth subdivision of Section 4920, U. S. Rev. Stat. (U. S. Comp. St., 1901, p. 3395):

"That (the patentee) was not the original and first inventor or discoverer of any material and substantial part of the thing invented."

This is a separate and distinct defense from the third one, and while evidence is not admissible to carry back the date of a later patent, by showing that application for it was filed earlier, *the fact that the person who took out such later patent was himself the original and first inventor of the invention in controversy earlier than the plaintiff may be proved, as any other fact is, by competent proof. Barnes Automatic Sprinkler Company* v. *Walworth Mfg. Company*, 60 Fed. 605, 9 C. C. A. 154; *Diamond Drill Machine Company* v. *Kelly Brothers* (C. C.), 120 Fed. 295. The various authorities cited in Judge Hazel's opinion and on the brief of appellee are concerned wholly

with the other defense, prior patenting or publication. (Italics ours.)

As a consequence, Judge Lacombe held the Sundh patent to be invalid because the patentee was not the first inventor, though the first patentee; an application having been previously filed *disclosing* the same invention, though the *claims* were *not for the same subject matter*. In other words, we maintain that this case clearly indicates that such a state of facts as was disclosed was insufficient to establish the third defense under Section 4920, R. S., *but was sufficient to establish the fourth defense*, and that it was the date of the *application as filed*, and not the date of the patent that controlled, the application being a reduction to practice as of its filing date, and showing prior knowledge of the invention as of *that date*.

In brief, then, that while the pleading of the patent *as such* was unavailing because it had not issued and so was not in the prior art under the statute, the pleading of prior *knowledge was* sufficient, and since supported by proof of the earlier filing it prevailed.

So that this case shows that even in the Second Circuit the principle we contend for has been approved.

This case is taken as an illustration of what we believe to be the conclusions that may be derived from the other decisions.

We urgently contend that the rule followed by the Court of Appeals for the Sixth Circuit expresses the correct principle, and the following quotation

from the *Lemley case, supra,* page 3, we think clearly distinguishes between the third and fourth statutory defenses and what must be proved under each, besides distinguishing various cases and showing that the apparent confusion is in large part because of the difference in pleading these defenses.

(2) This court held, in *Drewson* v. *Hartje Co., supra,* 131 Fed. at page 739, 65 C. C. A. 548, that a patent, the filing date of which antedated the filing date of the patent in suit, was prima facie anticipatory; and we have repeatedly accepted and applied that rule (e. g., *Electric Co.* v. *Westinghouse Co.*, 171 Fed. 83, 87, 96 C. C. A. 187; *Jackson Co.* v. *Adler*, May 18, 1917, 243 Fed. 386, — C. C. A. —; *Twentieth Century Co.* v. *Loew Co.*, 243 Fed. 373, — C. C. A. —, May 8, 1917). To rely upon these cases would be sufficient; but the contrary proposition is urged upon us so often and is observed to such an extent in current decisions that it seems to deserve reexamination. The cases, found cited to support the claim that such a patent is not part of the prior art, are collected in the margin. We are satisfied that the confusion arises out of a question of pleading, and has no foundation in matter of substance.

The patent statute (R. S. Sec. 4920 [Comp. St. 1916, Sec. 9466]) catalogues five supposedly independent matters of defense and requires the pleading of those which are to be relied upon. The separation is not analytically perfect; the last clause (*b*) of "third" seems to belong to "fifth," and since the

patentee could not possibly be the first inventor of something that, before his invention, had been patented to or described by another, the entire first clause (*a*) of "third" seems quite unnecessary. However, we have to deal with the statute as it is. The two classes [clauses?] now material are:

"Third. (*a*) That it (the invention) had been patented or described in some printed publication prior to his supposed invention or discovery thereof, or (*b*) more than two years prior to his application for a patent therefor.

* * *

"Fourth. That he was not the original and first inventor or discoverer of any material and substantial part of the thing patented."

Since an invention is not "patented" and the patent is not "published" until issued, it is apparent that when a patent is pleaded under this third defense, and the fourth defense is not involved, its application date is of no importance whatever. It is equally sure that where the tendered issue is whether the patentee was the first inventor (fourth defense), and it appears that another had made the invention, the *date of that other's patent, or whether he ever had a patent, or whether the prior description was by printing or without, is immaterial; the date of his invention is the vital thing.*

Under the familiar Patent Office rule, the filing of an allowable application is a constructive reduction to practice, and so there must be a presumption that the patentee had made his invention at the date of his filing.

The cases where a substantial change in the invention is made, pending the application, are exceptional, and, of course, he who alleges an exception must prove it. The existence of the presumption is worked out and declared, with perhaps unnecessary care, by the first Circuit Court of Appeals in *Automatic Co.* v. *Pneumatic Co.*, 166 Fed. 288, 293, 92 C. C. A. 206. Hence, it assuredly follows that if a patent in suit was applied for January 15th, and there is nothing to carry the patentee's invention back of that date, and if a patent disclosing the same invention was issued to another in July upon an application filed January 1st, this tends to show that the patentee of the patent in suit was not the first inventor. This has been distinctly held not only in *Drewson* v. *Hartje*, *supra*, but by the Seventh Circuit Court of Appeals (*Barnes Co.* v. *Walworth Co.*, 60 Fed. 605, 606, 9 C. C. A. 154); by Acheson, C. J. (*Westinghouse* v. *Chartiers Co.* (C. C.) 43 Fed. 582, and cases cited on page 588); and by the Second Circuit Court of Appeals (*Sundh Co.* v. *Interborough Co.*, 198 Fed. 94, 97, 117 C. C. A. 280); and it has been expressly recognized and applied by the Supreme Court (*Pope Co.* v. *Gormully Co.*, 144 U. S. 238, 244, 12 Sup. Ct. 637, 36 L. Ed. 420); by Mr. Justice Bradley (*Kearney* v. *Lehigh Co.* (D. C.) 32 Fed. 320, 322, 323); and by the Second Circuit Court of Appeals (*Hillard* v. *Fisher Co.*, 159 Fed. 439, 441, 86 C. C. A. 469; *Otis Co.* v. *Interborough Co.*, 222 Fed. 501, 502, 138 C. C. A. 97).

> Turning to the cases cited contra: *Bates* v. *Coe*, in using the language so often quoted (98 U. S. on pages 33, 34, 25 L. Ed. 68) is speaking solely of "evidence to sustain the second (third) defense," and this restriction has not been observed when it has been quoted as if applicable to all defenses. In *Horton Co.* v. *White Lily Co.* (C. C. A. 7), (213 Fed. 471), the court was considering two patents to the same inventor, a very different situation. In some, as in *Anderson* v. *Collins* (C. C. A. 8), (122 Fed. 451), it is carefully recognized that the ruling involves only the third defense. In others, the state of the pleadings does not appear. Some seem to depend upon a distinction between "anticipation" and "priority of invention," applying the former name to the third defense and the latter to the fourth, though we do not see why "anticipation" is not properly applicable to both. So far as any of the other cases may be distinctly inconsistent with the proposition of the preceding paragraph, we must think them erroneous. [243 Fed. p. 391 at 395–397.] (Italics ours.)

Only a brief comment on the principle case opposed to this view—that of *Farmers' Handy Wagon Co.* v. *Beaver Silo & Mfg. Co.*, *supra*—seems necessary.

In that case it does not appear that either the claims or the unclaimed disclosure in the specification and drawings of the patents introduced to show prior invention under the fourth defense, illustrated the same invention as that claimed in the patent sought to be invalidated thereby. In fact

the court concluded that they were *different inventions;* and did not find that an unclaimed disclosure of the same subject matter as was covered by the claims of the later applicant *was set out in the earlier applications.*

So while the court expressed itself in the statement that the prior art as disclosed in the earlier patents "should be limited to such matters as are included in their several claims," the exact point in issue in the instant case was not apparently a factor in the decision, for the inventions were not the same.

CONCLUSION

We respectfully submit that a patent which claims something that was sufficiently disclosed in an application filed before the application of the patent in issue is invalid because it is not for a "*New*" invention, "*Not Known* by others in this country before the applicant's invention or discovery thereof," and that proof to that effect is sufficient under the fourth defense of Section 4920, Revised Statutes.

WILLIAM D. MITCHELL,
Solicitor General.
HARRY E. KNIGHT,
JOHN W. LOVELAND,
Special Assistants to the Attorney General.

NOVEMBER, 1925.

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WM. R. STANSBUR
CLER

IN THE

Supreme Court of the United States

OCTOBER TERM, 1925.

No. 107.

THE ALEXANDER MILBURN COMPANY,
Petitioner,

vs.

DAVIS-BOURNONVILLE COMPANY,
Respondent.

ON WRIT OF CERTIORARI TO THE UNITED STATES CIRCUIT COURT OF APPEALS FOR THE SECOND CIRCUIT.

BRIEF FOR RESPONDENT.

PENNIE, DAVIS, MARVIN & EDMONDS,
Solicitors for Respondent.

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Supreme Court of the United States

October Term, 1925—No. 107.

The Alexander Milburn Company, *Petitioner*,

vs.

Davis-Bournonville Company, *Respondent*.

BRIEF FOR RESPONDENT.

This suit was tried on the issues developed in the pleadings filed by the parties. There were numerous issues, evidence was offered with respect to them and they were decided. The petition filed in this court and the writ granted by the Court relate to but a single one of those issues and that issue is specific and well-defined.

We maintain that, on that single, specific and well-defined issue, there is no conflict of decision of the lower Courts and no occasion for divergence of view.

The Issue on the Facts of the Case.

This is a suit for patent infringement. In such a suit, where invalidity of the plaintiff's patent is alleged, the usual defenses are prior patenting,

prior publication, prior knowledge, prior use, prior invention by someone other than the patentee, and lack of invention over the prior art. Certain of these defenses can be urged by the defendant only after giving notice thereof to the plaintiff. Such notice is required by Sec. 4920, R. S.,* and is usually given in the defendant's answer.

In this suit, defendant gave notice in its answer that it would present the defense of prior patenting (Par. *a*, R., 11) and the defense of prior publication (Par. *b*, R., 12) and the defense of prior use (Par. *c*, R., 12) and the defense of prior knowledge (Par. *d*, R., 12) and the defense of prior invention (Par. *e*, R., 15).

The writ granted by this Court and the record filed pursuant thereto bring before the Court only the defense of *prior invention*. And as the other defenses of prior patenting, prior publication, prior knowledge and prior use were pleaded, tried and decided, and are not now before this Court, it is especially important that clear distinction be made between the several wholly separate and distinct defenses.

The defense which is before the Court, that of prior invention, is pleaded with respect to four alleged prior inventors, but the record brings up the facts in connection with only one of them. So the pertinent part of this defense as it is pleaded in the answer, is as follows (R., 15):

> "That the patentee, John Walter Whitford, was not the original and first inventor or discoverer of any material or substantial

*Appendix, page iv. The Revised Statutes referred to herein are printed in an appendix.

part of the thing patented by said Letters Patent No. 1,028,410, but unjustly obtained said Letters Patent for that which was in fact invented by the following persons:

* * * * * * *

Harlan A. Clifford of Jersey City, N. J., who filed application Serial No. 605,741, January 31, 1911, which eventuated into patent 1,016,613, February 6, 1912, who was using reasonable diligence in adapting and perfecting the same."

Under the authorities, this defense of prior invention must be proved by clear and convincing proof and beyond a reasonable doubt.

Coffin vs. *Ogden* (1874), 18 Wall., 120.
Bates vs. *Coe* (1878), 98 U. S., 31.
Cantrell vs. *Wallick* (1886), 117 U. S., 689, 696.
Smith vs. *Sprague* (1887), 123 U. S., 249.
Barbed Wire Patent (1892), 143 U. S., 275.

The only proof offered in support of the defense is an application for patent filed by one Clifford (R., 57, *et seq.*), thirty-four days before the application for the Whitford patent in suit was filed. This Clifford application resulted in the grant of patent No. 1,016,613 illustrating a construction which complies with the requirements of the claims of the patent in suit, though it does not indicate that any advantages are obtained by the use of that construction and presents no claim for it. (See Petitioner's Brief, page 3, par. 6.)

In reply, we say that prior invention by Clifford of that invention which is claimed in the patent in suit is not established by a document in which Clifford said he was the inventor of something else. On the contrary, the fact that Clifford did not claim the invention patented by Whitford, although he disclosed a construction which embodies the Whitford invention, should be regarded as persuasive that he did not make the invention. It would be so unusual as to be almost unbelievable that a person who is striving to take advantage of the Patent Statutes to secure a monopoly on one invention, would magnanimously waive all right to a monopoly on another related invention and would choose the patent to be granted to him for the one invention as a vehicle for dedication of the other to the public.

Nowhere in the disclosure of the Clifford application is it stated that the subject-matter relied on by the petitioner was the invention of Clifford. So we think the only reasonable presumption is that it was not. But even if the opposite presumption were the reasonable one, that presumption would be more than overcome by uncontroverted evidence in this record which we think is quite sufficient to establish that Whitford and not Clifford was the inventor of the subject-matter in question.

Clifford and Whitford were both employed by the plaintiff, Davis-Bournonville Company, at the time or shortly prior to the time when the invention covered by the Whitford patent was made. At that time, some official of the company instructed the company's attorney to apply for a patent on it, and the attorney, complying with this

instruction and following his usual procedure, went to the plant of the company, obtained there the necessary data about the invention, and "ascertained who was the inventor." Having done that, he proceeded to prepare and file the application for the Whitford patent in suit (R., 16-17). After the lapse of more than twelve years, he could not say whether or not he questioned Clifford, or even whether Clifford was present at the time, but the usual investigation was made with the sole purpose of arriving at a correct decision in view of the facts, and led to the conclusion that Whitford was the inventor.

In this situation, we say it would be irrational to a degree to conclude that a mistake was made at the time by the attorney for the company, that the Whitford patent was improperly granted for an invention not made by Whitford, and that Clifford was the real inventor and allowed it to be patented improperly by Whitford, and to derive this conclusion from the single fact that Clifford filed an application for patent a few days before Whitford's application was filed and disclosed, but did not claim, in that application a construction which embodies the invention patented by Whitford. A much more reasonable presumption would be that Clifford was quite familiar with Whitford's work, that he knew Whitford had made the invention subsequently covered by the Whitford patent, that he, Clifford, originated the additional features of construction which are claimed in the Clifford patent, and that Clifford, knowing quite accurately what he had contributed to the art and what had been contributed by others, sought for and ob-

tained a patent for just what he knew he was entitled to, the description in the Clifford patent of the construction claimed by Whitford being due to the fact that Clifford obtained knowledge of it from Whitford and applied his own improvements to the Whitford device.

Thus the proof submitted by defendant, consisting merely of Clifford's application for patent, is subject to the vital defect that there is nothing in the Clifford application indicating that Clifford, rather than Whitford, was the inventor of the invention for which the Whitford patent was granted.

Under the construction of the proof before the Court most favorable to the defendant, the most that can be claimed by defendant is that a presumption is raised that Clifford was the prior inventor. But any such presumption has been rebutted by plaintiff's uncontroverted testimony that investigation at the time showed that Whitford was the prior inventor. Defendant did not call Clifford, in fact, did nothing further, and the case rests on these proofs. So any justifiable presumption, if there is one, has been overcome. It is our contention, however, that under the law no presumption can be raised by the unclaimed disclosure of the Clifford application and to this question of law the remainder of our brief is directed.

The Issue on the Conflict of Law.

Although petitioner pleaded the Clifford application only as evidencing prior invention by Clifford, the Court of Appeals went beyond the pleaded defense and decided that the Clifford ap-

plication cannot be used in any way to invalidate the Whitford patent. It is that conclusion expressed by the Court that is in conflict with the view of the Court of Appeals of the 6th Circuit.

The issue is thus defined by Judge Hough in the opinion of the Court of Appeals in this case (R., 105, 1 Fed., 2nd, 227, 230):

> "That question is this: Assume two copending applications for patent, both ultimately granted, each disclosing certain substantially identical matter, which matter is not made the basis of claims in, and is not covered by the claims of, the application first filed, but is the basis of, and is covered by, the claims of the later application; under such circumstances can the patent of the earlier filing date be used to invalidate the other patent?"

We welcome the opportunity to discuss this important question and to aid in its proper determination. It is a question which goes to the very fundamentals of the patent system and the determination of which will have far-reaching effect not only on the procedure in the Federal Courts but on that in the Patent Office. And its effect will extend beyond the confines of the question presented because it requires a nice appreciation of what constitutes the making of an invention and just what is prior knowledge within the meaning of the patent statutes. Its determination involves a decision as to whether the patent system shall continue to be a practical one dealing with tangible perceptible things, as it was clearly intended to be, or shall become a theoretical system dealing with metaphysical conceptions.

Synopsis of Respondent's Argument.

There are only two ways in which an earlier filed patent can be used to invalidate a later one, namely, by establishing *prior knowledge* (in which case the later applicant never had a right to a patent), or by establishing *prior invention* (in which case the later applicant had a right to a patent which was defeated by someone having a better right because of priority).

The patent system is essentially a practical one; it deals with inventions as *agencies* available to man and not as metaphysical conceptions. Patents are granted for making inventions available to the public. An invention is necessarily an advance over what was already known and available to the public. The test is in every case based on what is known, whether that be established by knowledge so general that it forms a part of the art, by a use in the art, or by knowledge as established by patents or publications. These conditions giving rise to the right to a patent are set forth in Sec. 4886, R. S.* If a patent application can prove knowledge in this sense as of its filing date, it of course bars the right of a later inventor because he cannot then comply with the requirements of Section 4886.

When, however, there are two persons each of whom complies with the requirements of Sec. 4886, the patent can be granted to only one of them, and it is granted to the one who was the first to conceive the invention if he was thereafter diligent in adapting and perfecting the invention so that it became available to the public as a new

*Appendix, page i.

agency. If a patent application can establish earlier conception and diligence thereafter in reducing to practice, it vitiates the later inventor's right to a patent.

FIRST, as to the defense pleaded, namely, priority of invention, a patent application does not establish prior invention or priority of right unless the subject-matter disclosed is claimed.

No question is here involved as to a prior invention which was completed and reduced to practice before the later applicant conceived, as in such case the invention became part of the knowledge which could be used to test whether the later applicant had in fact made an invention at all.

The patent of earlier filing date may undoubtedly establish as of its filing date a conception by that applicant of the invention disclosed, whether it is claimed or not. But to establish priority of right, this is insufficient; it must be coupled with a showing of diligence in reducing the invention to practice, or, in the words of the statute,* "in adapting and perfecting the same."

An *actual* reduction to practice cannot be shown by a patent application under any circumstances, and therefore the application itself can establish diligence in adapting and perfecting the invention only by utilizing the fiction of a constructive reduction to practice. This doctrine, however, relates only to subject-matter which is claimed, and does not in any way affect subject-matter which is unclaimed.

This subject has been confused by a misconception of the presumption of abandonment or dedication to the public of unclaimed subject-matter. Obviously, one cannot dedicate or abandon to the public that which was not his to dedicate.

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*Sect. 4920, R. S.

Therefore, if a patent application cannot be used to prove prior invention of unclaimed subject-matter, it cannot prove that the applicant dedicated the unclaimed subject-matter to the public. This presumption of dedication to the public is effective only to prevent the extension of the monopoly of a patent beyond what is claimed in that patent, and has no existence apart from that particular situation.

Therefore, it is necessary to conclude that a patent of earlier filing date establishes invention, as of the earlier filing date, only of the subject-matter which is claimed.

SECOND, the disclosure in a patent application does not constitute knowledge within the meaning of Sec. 4886 as of the filing date.

The knowledge contemplated by Sec. 4886 is knowledge which is available to the public, so that it constitutes part of the state of the art and may therefore serve as a basis for determining whether an alleged invention has in fact made an *advance* over the known art.

Disclosure in a patent application is secret and confidential, and is in no sense available to the public, and does not constitute in itself a part of the art as of the time it is filed. It probably establishes that the applicant and the fiduciaries associated with him in the prosecution of the application knew of the subject-matter there disclosed, but not in the physical sense. That is to say, they knew merely of the sketches and description contained therein, and did not know that the invention had been perfected or that no obstacles would be encountered in attempting to perfect it. It does not show that they knew it had a physical existence in the art.

It is well settled that unpublished sketches and descriptions do not constitute knowledge within the meaning of Sec. 4886. And the cases have held that even where the sketches and descriptions were in themselves so complete that if published they would constitute anticipations, and even though they were based on the knowledge of an actual machine in a foreign country, and even though the sketches and descriptions were known to several people in this country without any element of secrecy, they do not establish knowledge such as will defeat the right of an inventor to a patent.

Confusion on this subject also has been caused by reasoning from a misconception of the doctrine of constructive reduction to practice. On the assumption that unclaimed subject-matter in a patent application is constructively reduced to practice and that such constructive reduction is the equivalent of an actual reduction, it has been argued that the application establishes knowledge of a completed machine even as to unclaimed subject-matter. The fallacy of this argument is obvious. In the first place, the doctrine of constructive reduction to practice has been devised only to enable an inventor to secure a patent, and does not in any way prove that there was an actual reduction to practice. Furthermore, the doctrine has no bearing whatsoever on subject-matter which is unclaimed.

Confusion has also been caused by a misconception of the presumption of abandonment or dedication to the public. This presumption has been stated in another form as: "Unclaimed subject-matter in an application is presumed to have

been known prior to the application date and to constitute a part of the prior art." As pointed out above, this presumption is effective only to prevent an extension of the monopoly of a patent beyond what is claimed in that patent, and does not arise under any other circumstances. It is at most a helpful presumption against a particular patentee, and does not exist against another patentee.

It is necessary to conclude, therefore, that a patent application does not establish knowledge of the state of the art within the meaning of Sec. 4886 as of the time the application was filed, and cannot be used on that theory to invalidate the grant of a patent to another inventor.

These views are in accord with the decisions of all courts except those of the Sixth Circuit. The leading cases are *Sundh Electric Co.* vs. *Interborough Rapid Transit Co.*, 198 Fed. Rep., 94 in the Second Circuit, and *Farmers' Handy Wagon Co.* vs. *Beaver Silo Co.*, 236 Fed. Rep., 731, in the Seventh Circuit. In the Sixth Circuit the leading case is *Lemley* vs. *Dobson-Evans Co.*, 243 Fed. Rep., 391; in fact, that is the only case in which the reasoning is developed at any length. The cases in the Sixth Circuit prior to the Lemley case do not support the views there expressed and the later cases merely apply the ruling of the Lemley case without discussion.

These views are also in accord with the present practice of the patent office under Rule 75 in rejecting applications on patents which were copending and with the practice under Rule 96 in declaring interferences.

ARGUMENT.

Analysis of the Question.

Patents are unique property. The conditions of the grant of a patent and the defenses to a suit on the patent are peculiar to the patent system. Facts concerning patents, however, must be proved by evidence; the patent system has nothing about it which requires that the fundamental principles of evidence should be departed from, and only when the fundamental conceptions upon which the patent system is based are clearly understood, can the rules of evidence be clearly applied.

The patent system is essentially a practical one. It has been devised as a means for promoting the progress of science and the useful arts. Its purpose is to stimulate inventors to give something tangible and useful to the public which it did not have before, and an inventor is rewarded only in the event that, at the time he made his contribution to the art, his invention was not already known to the public.

An invention, in the view of the patent system, is an addition to the agencies available to man. When completed, it takes some physical form or can be used in some physical way.

Metaphysically considered, an invention is complete when the inventor has in mind a complete idea of means operative to carry out his object. When he conveys these ideas to others, we are aware he has conceived, but not until then. When he has reduced these ideas to tangible form by embodying them in an operative device, he has

completed his invention and gives a new agency to the public. Or, if he fully discloses the invention in a patent so that the public may eventually use it without further development, he has made it available to the public.

In the English patent system, upon which ours is based (Robinson, Vol. I, page 15), the test of whether an inventor made a contribution to the useful arts was always whether the invention was already known to the artisans in England in the sense that it was actually available to them for use.

> "When you say a thing is known to the public and part of common knowledge, of course you do not mean that every individual member of the public knows it. That would be absurd. What is meant is that if it is a manufacture connected with a particular trade, the people in the trade shall know something about it; if it is a thing connected with a chemical invention, people conversant with chemistry shall know something about it." (Jessel, M. R., in *Plimpton* vs. *Malcolmson* 1875), L. R., 3 Ch., 531, 556.)

Our patent system, in defining the conditions under which an inventor is entitled to a patent, adopts this fundamental view that the invention must not have been known before, and adds that it will be deemed known if it has been printed in a publication or patented in this or a foreign country, but not if it has only been used in a foreign country (Sec. 4923, R. S.), (Robinson, Vol. I, pages 309, 310, Secs. 226, 227).

These conditions giving rise to the right to a patent are defined by Sec. 4886, R. S., and the procedural requirements which must be complied with in procuring the grant after the right has arisen are defined in Secs. 4888 to 4893 R. S., inclusive. Broadly stated, any failure to comply with the conditions of Sec. 4886 prevents the right to a patent from arising, and is, therefore, a defense to a suit on the patent; and any failure to comply with the procedural requirements of Secs. 4888 to 4893, inclusive, invalidates the grant because of a defect in the procedure.

The date of conception by an inventor becomes important only when someone else asserts a right to a patent for the same invention and it is necessary to determine which was first.

There may be two persons who are original inventors within the meaning of Sec. 4886, but they cannot both be first inventors. If each asserts his right to a patent, a contest of priority arises. The statute provides for such a contest in the Patent Office under Sec. 4904, R. S., and in the Courts under Sec. 4918, R. S.

Where by inadvertence or for other reason there has been no contest under Sec. 4904 or Sec. 4918 but interfering patents nevertheless exist and a defendant is sued on one of them, then that defendant may plead and prove that the patentee of the other patent is in fact the first inventor, because it is fundamental to the whole system that two monopolies cannot exist for the same invention.

Certain defenses arising out of the foregoing conditions which require notice to the plain-

tiff are set forth in Sec. 4920, R. S. That section is not exclusive of defenses which are not recited therein, nor does it create any defense which does not exist by virtue of the granting and procedural clauses of the statute (Secs. 4886 and 4888-4893, incl.).

A patent application is not a printed publication. Nor is it a patent. And it certainly indicates nothing as to the completeness of the disclosure of the patent in suit or as to whether the invention in suit was in public use or on sale or abandoned. It therefore cannot have any bearing on the matters set out in the First, Third and Fifth clauses of Sec. 4920. It can have a bearing only on the defenses of the Second and Fourth clauses.

The Second clause, in its literal wording, is directed to a situation where the patentee secured a patent for an invention which had been conceived at an earlier date by another who was using diligence in perfecting it and it has been held to recognize the right of an inventor, in a contest of priority, to go back to his date of conception (*Reed* vs. *Cutter* [1841], 1 Story, 590).

It is this defense which is pleaded in the case at bar and Clifford is set up as the prior inventor. But since the issue on the conflict of law involves more than this, it is necessary to consider the Fourth clause.

This clause is directed to the case where the patentee is not the first inventor because his invention was already known. That is, if what he claims to have invented was already known, he could not have been the first inventor. The significance of the words "any material or substan-

tial part of the thing patented" is that he must have made a material or substantial contribution over what was known. If the prior knowledge be shown by the fact of prior invention by another, it must be a completed invention actually reduced to practice and available to the public. The mere fact of prior invention is not enough, as it is well settled that a concealed, forgotten or abandoned invention is not a bar to a patent to a subsequent inventor.

Gayler vs. *Wilder* (1850), 10 How., 477.
Mason vs. *Hepburn* (1898), 13 App. D. C., 86.

It is our view that the error in petitioner's position and in the rule established for the 6th Circuit (which is in conflict with that of the 2nd and 7th Circuits) arises out of a failure to recognize and keep firmly in mind the real and practical distinction between (a) those questions which arise when the inquiry is which of two independent inventors is the first inventor, and (b) those questions which arise when the inquiry is whether any invention has in fact been made. We regret that in petitioner's brief the discussion proceeds without distinguishing between the two defenses—prior knowledge and prior invention—in disregard of the fact that the Clifford patent and application are pleaded only in support of the defense of prior invention.

We shall discuss initially the first of these questions, which is the defense actually pleaded:

A Patent Application Does Not Establish Prior Invention or Priority of Right Unless the Subject Matter Disclosed is Claimed.

It is true that the fact of prior invention may be used to invalidate if the prior invention was in fact reduced to practice so that it was actually available to the public. But in such case it becomes a part of the public knowledge, and may be proved as such, and the assertion of a right to a patent has no bearing. In the present case there is no evidence of any such reduction to practice, and the only thing relied on is the filing of an application which discloses but does not claim.

In order to further clarify the discussion, we shall here assume (see *post,* page 36) that mere disclosure of the subject-matter in an application does not, within the meaning of Sec. 4886, constitute knowledge as of the filing date of that application. The question to which we shall now direct our attention is whether it is sufficient evidence that Clifford made the invention which Whitford claims. Both the District Court and the Court of Appeals in the case at bar held that it was not.

It may well be questioned whether the Clifford application may properly be considered as evidence of conception of the Whitford invention by Clifford, for Clifford's application shows no appreciation of the advantages obtained by the construction which Whitford patented and which was illustrated and described by Clifford only incidental to illustrating, describing and claiming certain other features of construction. But if the Clifford application be assumed to constitute evi-

dence of conception by Clifford of the invention patented by Whitford, then if there had been evidence of diligence by Clifford in actually building the device or reducing it to practice by filing an application claiming a patent therefor, an adequate defense against the Whitford patent might have been made out. But this petitioner has adduced no evidence to show that Clifford actually built his device and no evidence of diligence. Instead, it offered the Clifford application and nothing else, and now it relies on the doctrine of "constructive reduction to practice" under what we believe to be a total misconception of the true scope and nature of that doctrine.

The Doctrine of Constructive Reduction to Practice.

Briefly stated, the history, substance and application of this doctrine are as follows:

(1) From the point of view of the patent system, an invention is not complete until the inventor has taken it out of the realm of speculation into that of fact; until he has actually built the machine which he is supposed to have invented so that it has a real existence and is available to the public.

(2) The patent statutes (Sec. 4886) do not require this actual reduction to practice if a complete allowable application for a patent on the invention is filed. This act has been called a "constructive reduction to practice."

(3) It is essential that the patentee claim his invention.

(4) The doctrine has no application to unclaimed subject-matter, and has been evolved

solely for the benefit of one asserting a right to a patent. When relied upon by the defendant in a suit for infringement, it may be used only in so far as the subject-matter is claimed.

An invention is essentially a contribution of means for satisfying our wants, the supplying of which is not obvious and involves the use of the inventive faculties. Every invention comprises two parts: conception and reduction to practice.

Conception includes two ideas: an idea of object to be attained, and an idea of means.

Reduction to practice consists of making and using the invention so that it has a physical existence. This does not mean the mere making of sketches or description. There must be more than this. The invention must be taken out of the realm of speculation into that of reality.

Reed vs. *Cutter* (1841), 1 Story, 590, 599;
Agawam vs. *Jordan* (1869), 7 Wall., 583, 602;
Seymour vs. *Osborne* (1871), 11 Wall., 516, 552;
Draper vs. *Potomska Mills Corp.* (1878), 3 Ban. & A., 214;
Automatic vs. *Pneumatic* (1909), 166 Fed., 288, 294;
Warren Bros. Co. vs. *City of Owosso* (1909), 166 Fed., 309, 315;
Sydeman & Meade vs. *Thoma* (1909), 32 App. D. C., 362.

It is when we come to the question of evidence of the existence of these essentials that the difficulties arise.

Conception may be evidenced by sketches or description showing a complete idea of means. But not so with reduction to practice.

Lyman Co. vs. *Lalor* (1874), 12 Blatch., 303; 1 Ban. & A., 403;
Howes vs. *McNeal* (1878), 15 Blatch., 103; 3 Ban. & A., 376;
Porter vs. *Louden* (1895), 7 App. D. C., 64, 74;
Mason vs. *Hepburn* (1898), 13 App. D. C., 86, and cases cited;
Sydeman & Meade vs. *Thoma* (1909), 32 App. D. C., 362.

In the early years of our patent system reduction to practice could be proved only by a showing that there was an actual successful practice of the invention. And it was held that such a reduction to practice was necessary before any right to a patent arose.

Reed vs. *Cutter* (1841), 1 Story, 590;
Washburn vs. *Gould* (1844), 3 Story, 122;
Cahoon vs. *Ring* (1861), 1 Cliff., 592;
Whiteley vs. *Swayne* (1869), 7 Wall., 685;
Agawam vs. *Jordan* (1869), 7 Wall., 583;
Seymour vs. *Osborne* (1871), 11 Wall., 516;
Lyman vs. *Lalor* (1874), 12 Blatch., 303; 1 Ban. & A., 403;
Herring vs. *Nelson* (1877), 14 Blatch., 293; 3 Ban. & A., 55;
Howes vs. *McNeal* (1878), 15 Blatch., 103; 3 Ban. & A., 376.

Later cases held, however, that where one is asserting his right to a patent, the statutes do not require an actual reduction to practice if the patent is allowed.

Wheeler vs. *Clipper* (1872), 10 Blatch., 181;
Telephone Cases (1887), 126 U. S., 1, 535.

In *Automatic* vs. *Pneumatic* (1909), 166 Fed., 288, Judge Colt discussed very fully the question of whether an application for patent was evidence of reduction to practice as of the time the application was filed. At page 297 he said:

> "From these established and seemingly contradictory principles of the patent law, first, that an invention in order to be patentable must be reduced to practice, and, second, that, under the the statutes, reduction to practice is not essential either before or after the grant of a patent, it follows that there must be some stage of an invention when it must be presumed as a matter of law that the inventor has reduced his invention to practice; and that stage is presumed to have been reached when he has done all that he is required to do to obtain a valid patent, namely, when he has filed a complete and allowable application; and hence the Patent Office has adopted the rule that the filing of such an application is constructive reduction to practice, and the federal courts have adopted the rule that such an application is conclusive evidence that the patentee made his invention—that is, reduced

his invention to practice—at least as early as that date."

He also made clear what is meant by constructive reduction to practice, saying on page 294:

"The rule of the Patent Office that the filing of an allowable application is constructive reduction to practice is only the expression in another form of the rule that the application of a patented invention, if it sufficiently describes the invention, is conclusive evidence that the invention was made at least as early as that date.

In Lorraine vs. Thurmond, 51 O. G., 1781, 1782, Commissioner Mitchell, in his opinion, said, respecting this rule:

'Completed and allowed applications evidence completion of invention, and in suits brought upon patents granted thereon, that stage of invention which is usually evidenced by reduction to practice is conclusively assumed to have been reached. Hence the doctrine of "constructive reduction to practice."'

The Commissioner further said:

'If, as held in Seymour vs. Osborne, 11 Wall., 516, 20 L. Ed., 33, an invention is not patentable under the patent laws until it be perfected and adapted to use, and if, as held in the Telephone Cases, supra, and other cases cited, reduction to practice is not essential in order to obtain a patent, it follows that actual reduction to practice is not the only competent evidence of perfection and adaptation to use,

but that the inventor's act in filing an allowable application is to be regarded in law as such an efficient and crowning step as to give it the standing of an invention so perfected and adapted. Interferences are declared after the applications involved are pronounced to be allowable by the experts of the office. In determining whether the application is allowable, the question of operativeness is one of the primary considerations. (Rule 133.) It hardly need be added that approved applications stand upon an entirely different basis from those which have been rejected by the office or abandoned by the applicant. Webster vs. Sanford, 44 O. G., 567; Beach vs. Fowler, 48 O. G., 821.'

The rule of the federal courts respecting an application which has resulted in a patent, and the rule of the Patent Office respecting an allowable application, simply mean that such applications are conclusive evidence of the completeness of the invention. In other words, they are conclusive evidence that the stage of the invention has been reached which is evidenced by reduction to practice.''

It is essential that the application be not only allowable, but be allowed. Abandoned or rejected applications are not considered evidence of prior invention.

The Corn Planter Patent (1874), 23 Wall., 181;
Lyman vs. *Lalor* (1874), 12 Blatch., 303;
Northwestern Fire Extinguisher Co. vs.

Philadelphia, etc., Co. (1874), 1 Ban & A., 177;
Herring vs. *Nelson* (1877), 14 Blatch., 293;
Webster vs. *Sanford,* 1888 C. D., 92.

Judge Colt in *Automatic* vs. *Pneumatic, supra,* commented on this as follows:

> "The cases which hold that a rejected application is not sufficient to establish priority of invention under the statutes have no bearing on the question of the legal effect of a complete and allowable application which will result or has resulted in the granting of a patent. These cases simply enforce the rule that an invention must be perfected and adapted to use in order to prove prior invention or prior use."

The application, if complete and allowable, was considered conclusive evidence of a reduction to practice as required by law.

At once the question arises: Why should this be so; why should the drawings and descriptions of a patent application be evidence of a reduction to practice, where other sketches and description are not?

The cases, *ante,* laying down and approving the doctrine of constructive reduction to practice are concerned with whether a patentee has complied with the conditions entitling him to a patent for the invention *which he claims.*

And the answer to the question why the application is evidence of reduction to practice lies in

the fact that the inventor claims his invention, and that before his claim is allowed he must have complied with certain requirements. The satisfaction of these requirements, including a full statement of a new invention, illustrated by detailed description of an operative embodiment, defined by distinct claims, and supported by oath that the thing claimed is applicant's invention, is given the legal effect that actual reduction to practice would have. An original inventor has the benefit of the rule that he may go back of the actual date of invention of his rival if he can couple his earlier conception with diligent reduction to practice. The filing of a complete and allowable patent application satisfies the requirement of diligence, and to that extent inures to the benefit of the person asserting a right to a patent.

The statute (Sec. 4888) requires the applicant to "particularly point out and distinctly claim the part, improvement or combination which he claims as his invention or discovery." Sec. 4892 requires him to "make oath that he does verily believe himself to be the original and first inventor or discoverer of the * * * improvement for which he solicits a patent." Obviously, he solicits a patent and the protection of the patent laws for what he claims. The claim therefore vitalizes the drawings and description so that they become evidence of a completed invention.

The time at which the claim is made does not affect this, as it may be made by amendment, in a divisional application, or by reissue.

Smith and Griggs Co. vs. *Sprague* (1887), 123 U. S., 249;

Austin vs. *Johnson* (1901), 18 App. D. C., 83;
Ex parte Waterman, 1902 C. D., 235, 237;
Hopfelt vs. *Read,* 1903 C. D., 319, 321;
Duryea and White vs. *Rice* (1906), 28 App. D. C., 423;
VonRecklinghausen vs. *Dempster* (1910), 34 App. D. C., 474;
Chapman vs. *Wintroath* (1920), 252 U. S., 126, 137.

The original disclosure cannot be materially changed. The statement of invention and the claims may be changed, but when an applicant presents a claim for matter originally shown or described but not substantially embraced in the statement of invention or claim originally presented, he is required to file a supplemental oath to the effect that the subject-matter of the proposed amendment was part of his invention and was invented before he filed his original application. (Patent Office Rule 48, Appendix, page vi.)

From another aspect, also, it is the claim which raises the presumption that the invention for which the applicant seeks a patent was complete at the time he filed. And it is here that we see the significance of the fact that the application must be allowable.

The statute (Sec. 4888) provides:

> "Before any inventor or discoverer shall receive a patent for his invention or discovery, he shall * * * file in the Patent Office a written description of the same and of the man-

> ner and process of making, constructing, compounding and using it, in such full, clear, concise and exact terms as to enable any person skilled in the art or science to which it appertains * * * to make, construct, compound and use the same * * * and he shall particularly point out and distinctly claim the part, improvement or combination which he claims as his invention or discovery * * *."

The purpose of the disclosure is to make the invention so clear that no further invention is necessary to put it into practice, so that, upon issuance of the patent, the public will be as fully aware of the invention as if it actually saw and used it.

It is essential that this requirement be complied with before allowance, and patents are held invalid for non-compliance.

> *Wood* vs. *Underhill* (1847), 5 How., 1, 5;
> *Tannage Patent Co.* vs. *Zahn* (1895), 66 Fed., 986, 988;
> *National Chemical & Fertilizer Co.* vs. *Swift & Co.* (1900), 100 Fed., 451, 452;
> *Featheredge Rubber Co.* vs. *Miller Rubber Co.* (1919), 259 Fed., 565, 570.

To determine this, the Patent Office examines the part claimed to determine its operability. There is no occasion to consider any part which is not claimed or which is not essential to the part claimed. Patents which are inoperative in unclaimed and non-essential features are not held invalid for that reason.

Keystone Type Foundry Co. vs. *Fastpress Co.* (1919), 263 Fed., 99, 104-5. (This decision was overruled on appeal, 272 Fed., 242, but on an entirely different ground.)

Pickering vs. *McCullough* (1881), 104 U. S., 310, 319;

Dalton Adding Machine Co. vs. *Rockford Milling Machine Co.* (1918), 253 Fed., 187, 188 (affirmed 1920—267 Fed., 422);

Manhattan Book Casing Co. vs. *E. C. Fuller Co.* (1913), 204 Fed., 286, 287.

Having determined that the claimed portion is operative and sufficiently described so anyone skilled in the art can put it into practice, the Patent Office allows *the claim,* and the patent is issued in due course.

The presumption is, therefore, that an allowable application complies with the requirement of a reduction to practice. The existence of the claim is essential, and the presumption in reason and on principle should apply only to such matters as are claimed.

In summary, an invention consists of conception and reduction to practice; conception may be evidenced by sketches or description, but reduction to practice must be evidenced by more—by actual use or by filing a complete and allowable application for patent for the invention, supported by claim and under oath.

The doctrine of "constructive reduction to practice" was evolved, therefore, only to assist one asserting in a formal way a right to a patent, and it had nothing to do with proving prior invention as a defense.

The doctrine, having been applied in favor of independent inventors in their contests of priority and in favor of a patentee whose patent is attacked, is *logically* applicable in favor of a defendant who sets up *prior invention* as a defense. But its logical application in that case must be limited to the principle underlying the doctrine, and a patent application should be admitted as evidence only in so far as the disclosure is supported by claim. It is the claim that gives the disclosure evidentiary value.

That distinction has been observed by the Federal Courts in the 2nd Circuit and in the 7th Circuit, and, we think, correctly so. It has been ignored by the Federal Courts in the 6th Circuit and those Courts have gone even to the extent of holding that the disclosure in a patent application is part of the prior art as of the date when the patent application was filed. That practice seems to us clearly unsound.

On general considerations of justice, and of the purpose underlying the patent system, it seems to us clear, as it seemed to the Court of Appeals in the case at bar (R., 105-106), that the question whether subject-matter disclosed in an application but not claimed should be regarded as preventing an original inventor from making the same disclosure and grounding a claim upon it before the earlier statement has become public, should be answered in the negative. In fact, we think any other rule creates impossible situations in practical application. As we have already shown its application in the case at bar would be to require the Court to accept as proved beyond a reasonable doubt a thing which is not in any logical

sense proved and in fact is contrary to what is clearly indicated by the record.

Application of the doctrine of constructive reduction to a situation which is of common occurrence in connection with applications for patents shows the necessity for limitation of the scope of the doctrine in conformity with its purpose and origin as we have set forth above. For instance, many applications for patents contain disclosures of inventions made by others who are seeking patents for them. Naturally the applicant does not claim those disclosures as he knows they are not his to claim. Yet the rule urged by the defendant would make such disclosures evidence that the things disclosed were invented by the applicant.

The fact that the applicant is actively engaged in securing a patent on an invention and at the same time is disclosing matter which he does not claim, seems to us to be evidence (if it is evidence at all) that the unclaimed matter was not his invention.

This is strikingly brought out by the case of *Electric, etc., Co.* vs. *Westinghouse, etc., Co.* (1909), 171 Fed., 83, in the 6th Circuit (which Circuit supports petitioner's position). In that case the defendant relied on certain unclaimed disclosures in the patent application of one Davis. However, the inventor, Davis, testified that he did not make the invention of those disclosures; that at the time the application was filed he knew that the inventors of the patent in suit "were working on" the invention of his disclosure and that he used it for illustrative purposes only and with no intention to claim it. The Court preferred to consider that this testimony rebutted a presumption which

resulted from the application itself, but it seems to us that the sounder view is that because Davis failed to claim the invention, no presumption arose.

Because the doctrine was evolved entirely in assisting an applicant for patent who had presented and was continuing to urge a claim for his invention, there has been no occasion for Courts, in discussing and applying the doctrine, to point out that its application is limited to the subject-matter claimed as the invention of the applicant. Without the claim there would have been no occasion for discussion of the doctrine. That circumstance makes it possible for petitioner to find, and it has found and has cited, many decisions in which it is stated that the filing of an allowable application for patent is considered as tantamount to actual reduction to practice, without completing the statement by saying it is tantamount to actual reduction to practice of the invention described and claimed as the invention of the applicant. However, such instances of incomplete statement of the doctrine do not establish the doctrine as of the scope which petitioner now claims for it, a scope much broader than any decided case contemplated and lacking all support in the reasoning which gave rise to the doctrine.

Before we leave this discussion of prior invention and constructive reduction to practice, we believe it would be well to dispose of a matter which is closely related and which has led to confusion not only in some of the decisions but in the briefs of the petitioner and the Solicitor General, namely, the question of

Abandonment or Dedication to the Public.

Obviously a person cannot abandon to the public an invention which was not his to abandon. As was said by this Court in *Miller* vs. *Brass Co.* (1882), 104 U. S., 350, in discussing whether previously unclaimed subject-matter could be claimed later:

> "But it must be remembered that the claim of a specific device or combination, and an omission to claim other devices or combinations apparent on the face of the patent, are, in law, a dedication to the public of that which is not claimed. It is a declaration that that which is not claimed is either not the patentee's invention, or if his, he dedicates it to the public."

The presumption of abandonment to the public has come into the cases only where they are concerned with the rights of a patentee himself to extend his monopoly to something he did not claim. It is a presumption raised solely against that patentee to prevent his broadening the monopoly of the particular patent containing the unclaimed subject-matter.

This is made clear by the decision of this Court in *Mahn* vs. *Harwood* (1884), 112 U. S., 354, where it is said:

> "The taking out of a patent which has, as the law requires it to have, a specific claim, is notice to all the world, of the most public and solemn kind, that all those parts of the

art, machine or manufacture set out and described in the specification and not embraced in such specific claim, are not claimed by the patentee, at least not claimed in and by that patent. If he has a distinct patent for other parts or has made application therefor or has reserved the right to make such application, that is another matter, not affecting the patent in question. But so far as that patent is concerned, the claim actually made operates in law as a disclaimer of what is not claimed * * *."

The cases cited by petitioner (Brief, pages 9-11) and the Solicitor General (Brief, page 16) are all to this effect.

The confusion has arisen by taking the mere words and phrases and neglecting the meaning. There is no justification for taking the rule from its place as a presumption against a patentee and asserting that it can be used by another to prove that the unclaimed subject-matter not only was dedicated to the public by the patentee but also was the invention of the patentee which he was at liberty to dedicate if he chose to.

The rights of the public under this presumption are solely against the patentee of that particular patent and the only effect that the unclaimed subject-matter can have against another inventor is as a publication when the patent issues.

Numerous decisions, many of which have been quoted by our adversaries, state the principle of dedication without qualification as comprehending all matter disclosed but not claimed. This is due, as stated above, to the fact that the subject then

under discussion was an effort to extend the protection of the patent beyond the limits of the claims. Because of that, it was unnecessary to qualify the dedication as applying only to inventive ideas which belonged to the patentees and which they, therefore, had the privilege of dedicating if they cared to. In some instances where care has been observed to state the principle accurately, the qualification which we say is necessary has been brought in. Two excellent instances are the two cases last above quoted. For instance, in *Miller* vs. *Brass Co.*, this Court said that failure to claim disclosed matter is "a declaration that that which is not claimed is **either not the patentee's invention**, or if his, he dedicates it to the public." Also, in *Mahn* vs. *Harwood*, this Court said that unclaimed disclosures "are not claimed by the patentee, at least not claimed in and by that patent," thus recognizing the fact that those unclaimed disclosures may be claimed either by some other patentee rightfully entitled to claim them, or in some other patent of the same patentee.

Furthermore, the presumption does not arise until the patent issues. Up to that time, the inventor may assert his claim to the unclaimed subject-matter (if, in fact, it is his to claim), and in that event, the public never gets any right. And even after issuance of the patent the right of the public is at best defeasible, as the inventor may, if he can establish his right to the subject-matter disclosed but not claimed, reissue his patent at any time within two years and insert claims to the previously unclaimed subject-matter, thereby defeating the public's right.

As a matter of fact, the right of the public has no bearing whatsoever on the present issue, and serves only to confuse it. It is certain that the public had no rights whatever in the Clifford disclosure as of the time when Whitford made his invention, and that is the time at which we must determine whether Whitford was in fact an inventor of something which was not known and was therefore entitled to a patent.

Certainly, unless it is shown that Clifford was the inventor of the subject-matter which he did not claim, he could not dedicate it to the public no matter what he did. Nothing he could do would in any way affect the right of Whitford, the inventor, to a patent.

In the preceding discussion of whether the Clifford application could be used as to unclaimed subject-matter to establish the defense of prior invention by Clifford, we have purposely avoided any discussion of whether it can be used as establishing knowledge within the meaning of Sec. 4886.

We shall now address ourselves to that question.

The Unclaimed Disclosure in a Patent Application Does Not Constitute Prior Knowledge Within the Meaning of Sec. 4886 as of the Date of Filing of the Application.

As we have previously pointed out at some length, the patent system is essentially a practical one, and is concerned with advances made in the useful arts. Such advances must be tangible, and the question of whether they are advances or not must be determined by considering what the

known art was at the time the alleged advance was made. The knowledge contemplated by the patent system is that gained by experience, not by conjecture; it is knowledge in the physical sense as distinguished from metaphysical; it is a knowledge based on perception rather than conception.

Sec. 4886 provides that if a device is in use publicly it is within the knowledge of the art, or if it is described in a printed publication or in a patent it will be deemed to be within the knowledge of the art. But it has always been held that sketches, drawings or description, regardless of how complete they may be, and regardless of the fact that they are known to several people, do not constitute knowledge within the meaning of Sec. 4886 unless they are published.

Robinson, Vol. I, page 310;
Searls vs. *Bouton* (1882), 12 Fed., 140;
Stitt vs. *Eastern R. Co.* (1884), 22 Fed., 649;
Judson vs. *Bradford* (1878), 3 Ban. & A., 539;
Westinghouse vs. *General Electric Co.* (1912), 199 Fed., 907, 918, 923, affirmed (1913) 207 Fed., 75;
De Kando vs. *Armstrong* (1911), 37 App. D. C., 314.

The extent to which the practical application of this conception is insisted upon is strikingly illustrated by the case of *Westinghouse* vs. *General Electric Co.*, supra. In that case, De Kando had built an actual machine in Italy which was inspected by and thoroughly understood by one Water-

man. Waterman came back to this country bringing with him the mental knowledge of the existence of that machine, and he prepared drawings and description of the machine which were tangible evidences of his mental knowledge, and he disclosed these drawings and description to several others, but he did not publish them and they were in no sense available to the public of this country, nor did the machine in Italy constitute a use in this country. Both the District Court and the Court of Appeals in that case held that the use of the machine was not evidence of knowledge because it was in a foreign country, and that the sketches and description in the possession of Waterman were not the kind of knowledge referred to in Sec. 4886 and could not be used to invalidate or anticipate the grant of the patent to Armstrong, who had independently made the same invention. The Patent Office and the Court of Appeals of the District of Columbia in the interference *De Kando* vs. *Armstrong, supra,* made the same ruling.

The drawings and description in a patent application certainly are not different from other drawings or description as evidencing knowledge. And they certainly are not published and are not available to the public; they do not constitute public knowledge nor do they evidence in any way the state of the art which was known to the public. As a matter of practice, patent applications are and always have been maintained with the greatest secrecy by the Patent Office. While, of course, it must be conceded that the existence of the drawings and description in the patent application indicates that the applicant himself had at least a

mental conception of what they disclosed, they do not in any sense evidence that he, or anyone else, ever knew of the thing in a physical sense or that it was a part of the prior art. That this is so, is strikingly brought out by the fact that in the present case the petitioner attempted to prove that the prior art knowledge included the Whitford invention and attempted to prove prior use of the invention but was held to have failed in the effort.

Misconception of the significance of the "presumption of abandonment to public" has led both the petitioner and the Solicitor General into vital error on this subject. The fallacy is well exemplified by the statement in the brief of the Solicitor General (Summary, page 5, Topic VI).

> "This presumption must then necessarily become a conclusion as to any later patent."

Even the cases in the 6th Circuit do not support this, for the direct opposite was held in *Electric Controller Co.* vs. *Westinghouse Co.* (*ante*, page 31).

As we have pointed out, *ante*, page 33, the presumption is applied only against a patentee who attempts to enlarge the claims of his patent. The same presumption stated as a presumption that unclaimed subject-matter is prior art applies also only to that patentee and has nothing to do with another inventor or another patent to the same inventor. *Mahn* vs. *Harwood*, 112 U. S., 354, 361.

It appears also that a misconception of the doctrine of constructive reduction to practice has

caused confusion on this subject in some decisions and certainly in the briefs for petitioner and the Solicitor General. The misconception is that the doctrine holds that the mere filing of an application constitutes a constructive reduction to practice as to everything disclosed. The reasoning proceeds on the ground that this must be so as the applicant can insert his claim at any time and the application is always held to be a constructive reduction to practice as of the filing date no matter when the claim is inserted. This has led to the misconception that unclaimed subject-matter was constructively reduced to practice at the filing date and was therefore at least knowledge as of that date within the meaning of Sec. 4886.

Of course this is not so, and the doctrine of constructive reduction to practice does not aid in making unclaimed subject-matter knowledge, as the fundamental basis of the doctrine is that the applicant asserts his right to a patent by claiming his invention (*ante*, pages 19-32).

To regard the subject-matter disclosed but not claimed in an application as part of the prior art as of the date of filing of that application is, we think, so far in conflict with the practical purpose of the patent law and so inconsistent with all the other rules and procedures that have grown up in the practical carrying out of that purpose that it must be rejected (see *post*, page 64).

The foregoing discussion covers, we believe, the principles which determine the issue before the Court. We shall now discuss the cases in which this issue has been presented with a view to showing that the great weight of authority is in accord with our conclusion from the principles, that the

extent to which there is conflict is limited and that the few cases in which a contrary view has been announced are unsound.

The Cases in the 6th Circuit.

The practice of the 6th Circuit has undoubtedly been to consider the entire disclosure of a patent as prior art and anticipatory as of the time the application was filed. As was said by Hough, J., in the present case, the rule of the 6th Circuit is unsound for the reason, if no other, that it is too broad. It fails to make the well recognized and firmly established distinction between "anticipation" and "prior invention" as a bar to a patent.

It is true that these terms may themselves create confusion. A prior invention connotes something which anticipates or precedes the right of another and in this sense it might be loosely called an anticipation. But if a prior invention has been completely reduced to practice and has become known to the public, it is an anticipation because of its existence and regardless of the fact that it was invented.

The terms as commonly applied in the patent law have, however, well recognized meanings.

"Anticipation," if proved, negatives the consideration for the patent. The public having been in possession of the invention, the inventor has nothing to give.

The term "prior art" is of the same sort as "anticipation" but is broader, including all the known art, whereas anticipation is usually employed to denote a knowledge of the exact invention which it antedates.

"Prior invention" involves priority of right and diligence, and the public need never have known of the invention.

An application cannot operate as a publication until it is published. And by the same token it cannot be part of the public knowledge until then.

Cochran vs. *Zimmerman,* 53 Fed., 801 (C. C., N. D., Ohio, E. D., July 14, 1892, before Taft, C. J. and Ricks, D. J.), was the first case in the 6th Circuit. The patent in suit was a reissue. After holding the reissue invalid because there was no mistake or inadvertence in the issue of the original patent and on another ground that the invention claimed in the reissue was anticipated by Emlaw's patent of 1871, the Court said (page 804):

> "The furnace fuel feeder of A. Warne, patented August 28, 1888 (No. 388,468), for which application was filed February 7, 1887, five months before complainants filed their application for their original patent, anticipates in every particular the combination of complainants, as specified and claimed in the reissued patent."

There was no elaboration of this statement. Examination of the Cochran patent in suit and of the Warne patent shows that they were patents for substantially the same invention. Both could not stand as valid patents. That case, therefore, did not involve what has since become a point on which opinions differ and the action taken by the Court in invalidating the patent in suit is in entire accord with the decisions of all other Courts in similar situations.

In *Drewson* vs. *Hartje Paper Mfg. Co.*, 131 Fed., 734 (C. C. A., 6, June 16, 1904), the Symons patent, issued September 3, 1895, was "pleaded in the answer as an anticipation" of the Drewson patent in suit issued August 4, 1896. The Symons application was filed January 17, 1895, and the Drewson application, June 12, 1895. In the absence of objection, the Court took the filing date appearing on the printed copy of the patent as the true filing date and correctly held that in the absence of other evidence the disclosure of the application would be presumed to be identical with that of the patent. The Court then said (page 739):

> "The date of the first application, in the absence of any other evidence of the date of an invention, must be taken as establishing the date of the first invention. It follows, therefore, that the patent to Symons not only has the earlier issue date, but prima facie covers the earlier invention, and was therefore entitled to be regarded as an anticipating patent."

In our view, that statement is correct only where both patents claim the subject-matter in question —only if "anticipating patent" is taken to mean a patent to an earlier original inventor claiming the invention.

Examination of the claims of the two patents (Drewson patent No. 562,263 and Symons patent No. 545,550) shows that they did claim the same subject-matter with the exception that Drewson in his claim added a cooler to the apparatus of

the Symons claim; and the Court held that the addition of the cooler to the device of Symons was not invention. The subject-matter claimed in the two patents logically supported the conclusion of the Court. Symons claimed the apparatus without the cooler, and Drewson, the patentee of the patent in suit, claimed only the combination of that apparatus with the cooler. The Court was doubtless correct in holding that the addition of the cooler was not a material or substantial departure from the thing patented by Symons, and that being so, the conclusion reached by the Court, as stated in the above quotation, that the Drewson patent in suit was void in view of the Symons patent, was correct and in exact accordance with the rule that has been applied consistently in all Circuits.

The Cochran case was not cited in this case.

In *Electric Controller Co.* vs. *Westinghouse E. & Mfg. Co.*, 171 Fed., 83 (C. C. A., 6th, June 24, 1909), discussed *ante*, page 31, the Davis patent was applied for on January 7, 1893, and issued August 15, 1893. The patent in suit was applied for February 25, 1893, and issued April 24, 1894, and the Court said (page 87):

> "The date of the filing of the Davis application (as well, in fact, as the date of the patent) thus antedate the corresponding dates of the Lange and Lamme patent. If, therefore, the two applications disclose substantially the same subject-matter, in the absence of any other evidence of the date of invention, the date of the first application would prima facie be taken as the date of the first

invention. Drewson vs. Hartje Paper Mfg. Co., 131 Fed., 734, 739."

The Court then emphasized as significant the fact that the subject-matter of the patent in suit was not claimed in the Davis patent. At the trial, Davis testified that he was not the inventor of that subject-matter, and the Court said (page 88):

> "The testimony of the inventor Davis negatives whatever presumption is afforded by Fig. 4 and by the specifications of an anticipatory invention of the features of construction in question."

As we have said, the same result would have been arrived at if the Court had said that, because of Davis' failure to claim the subject-matter, no such presumption arose. Certainly this case makes it clear that no Court can say that the description of unclaimed subject-matter in a patent application gives rise to a conclusive presumption either that that subject-matter was invented by that applicant, or that it was part of the prior art. The subject-matter was, in fact, derived by Davis from his knowledge of the work of the patentees of the patent in suit.

In *Jackson Co.* vs. *Adler*, 243 Fed., 386 (C. C. A., 6th, May 18, 1917), the application cited as anticipatory embraced the invention of one Young. It was fully established that Young had made exactly the same invention as the patent in suit, and had, in fact, prevailed over the patentees in suit in an interference proceeding. The claim of the interference was not the same as the claims in

suit, yet Young's device "was conceived and reduced to practice as an entirety," and the Court proceeded to measure the scope of the patent in suit by its departure from the structure invented and reduced to practice by Young, which is, of course, precisely what should have been done. However, in arriving at its conclusion which is undoubtedly correct, the Court made one statement which was inappropriate and is unfortunate. The Court said (page 389):

> "* * * the priority of the invention as to his entire device presumed from the earlier filing of his application (Electric Controller & S. Co. vs. Westinghouse E. & Mfg. Co., 171 Fed., 83, 87; C. C. A., 6) makes Young's patent a part of the prior art. * * *"

There was no occasion for any presumption because Young's priority had been established by proofs and was no longer contested by plaintiffs.

In *Twentieth Century* vs. *Loew*, 243 Fed., 373 (C. C. A., 6, May 8, 1917), the present question was not involved. There it was held that the patent in suit was invalid not because of prior invention but because of the existence of an actual machine conceived and constructed and operated before the machine of the patent in suit. But the Court went on to say that if the plaintiff were given the benefit of his alleged date of conception (which he had not proved), then the defendant would be accorded the date when the construction of its anticipating machine was commenced. This holding was on the sound theory that defendant's anticipating machine could be considered as a

prior invention and that defendant could go back to the date of conception by showing diligence thereafter.

In *Lemley* vs. *Dobson-Evans Co.*, 243 Fed., 391, 395 (C. C. A., 6, June 5, 1917), the Court for the first time set forth in any detail its reasons for the rule "that a patent, the filing date of which antedated the filing date of the patent in suit, was, prima facie, anticipatory." The Court recognized and pointed out (page 396) that the patent cannot operate as a publication or as a prior patent until it is issued; and also that on the defense of prior invention "the date of that other's patent, or whether he ever had a patent, or whether the prior description was by printing or without is immaterial; the date of his invention is the vital thing." The Court then said:

> "Under the familiar Patent Office rule, the filing of an allowable application is a constructive reduction to practice, and so there must be a presumption that the patentee had made his invention at the date of his filing";

and cites as authority *Automatic* vs. *Pneumatic* (1909), 166 Fed., 288. As we have already said (*ante*, page 23), the opinion of Judge Colt in *Automatic* vs. *Pneumatic* properly emphasized the fact that the application is a constructive reduction to practice only for what is allowable; and that means only for what is claimed. The requirements of completeness of disclosure, operativeness, oath, and diligence all relate only to the subject-matter claimed; and before the allowance the application is examined only with respect to

that subject-matter. It appears that in the *Lemley case*, the Court of Appeals of the 6th Circuit gave no consideration to this distinction, one way or the other, and could not have appreciated the meaning of the doctrine of constructive reduction to practice. The Court said:

> "Hence, it assuredly follows that if a patent in suit was applied for January 15th, and there is nothing to carry the patentee's invention back of that date, and if a patent disclosing the same invention was issued to another in July upon an application filed January 1st, this tends to show that the patentee of the patent in suit was not the first inventor";

and cited as one of its authorities *Sundh* vs. *Interborough* (1912), 198 Fed., 94, which is authority in the 2nd Circuit for *testing by the claims* the subject-matter alleged to have been invented at the date of filing the application.

The Court's analysis of Sec. 4920 and the expression (page 397):

> "Some [cases] seem to depend upon a distinction between 'anticipation' and 'priority of invention,' applying the former name to the third defense and the latter to the fourth, though we do not see why 'anticipation' is not properly applicable to both";

show that the Court drew no distinction between what is "known" within the meaning of Sec. 4886, on the one hand, and priority of right as between rival inventors, on the other hand.

The Court proceeded to treat the disclosure of two applications, which did not eventuate as patents until after the filing of the patent in suit, as part of the prior art and found no invention in the patent in suit as compared with the state of the art thus fixed. Whatever else may be said on the subject, it seems to us clear that this procedure is unsound. We think there is no escape from the proposition of the Court of Appeals in the case at bar that no part of a pending application for a patent can be considered as a part of the prior art because the phrase "prior art" means something that "a man skilled therein may by reasonable, or perhaps unreasonable, diligence discover"; and he cannot discover what is contained in a pending patent application.

The cases following *Lemley* vs. *Dobson* of course proceed on the authority of that case. They add little to the discussion. These are:

General Electric Co. vs. *Cooper Hewitt Co.* (1918), 249 Fed., 61;
Westinghouse Elec. Co. vs. *Formica* (1920), 270 Fed., 632;
Higgin Mfg. Co. vs. *Watson* (1920), 263 Fed., 378;
Diamond, etc., Co. vs. *Merz, etc., Co.* (1921), 276 Fed., 274;
Naceskid, etc., Co. vs. *Perdue* (1924), 1 Fed., 2nd, 924;
Universal Rim Co. vs. *Firestone, etc., Co.* (1925), 7 Fed., 2nd, 24.

It is interesting to note that this last case, which was decided after the decision of the Court of

Appeals in the instant case was published, does not discuss that decision.

In four other instances, the *Lemley* case has been cited but on points unrelated to those involved in this suit.

In *General Electric Co.* vs. *Cooper-Hewitt, supra,* there had been an interference between Kuch and Bastian, in which Bastian prevailed, and the Court had to consider the patentability and scope of the Kuch patent. It having been established that Bastian was the prior inventor of the underlying subject-matter, that subject-matter was properly excluded from the invention of Kuch. It was the same procedure followed by the Court in the *Jackson* case with respect to the prior Young invention. The Court said that the result of the interference was to "put [Bastian] in the prior art where, for the fourth defense, he must be placed (*Lemley* vs. *Dobson,* C. C. A., 6th, 243 Fed., 391, 395)." Our criticism is of the language not of the result. We think the Court should have said that the interference established the fact that Bastian was the prior inventor of the underlying subject-matter, rather than that Bastian was "in the prior art." The *effect* of Bastian's prior invention was in this case the same as if it had been in the prior art, but it is obviously wrong to say it *was* in the prior art. The correct theory upon which a patent should be held invalid under these circumstances is: patents can be granted only for inventions; where it is established that an inventor was not the first inventor of certain claimed subject-matter he cannot get a patent for it; and he can get a patent only for something which is "patentable over it" or in other words for something

in addition which required invention. The Court further said (page 66):

> "Plainly, when we consider a supposed invention with reference to a prior patent, to determine whether there was inventive advance, the claims of that patent are wholly immaterial—unless in some possible instances, where the claims might interpret an obscurity";

and proceeded to apply that remark to sustain the proposition that Bastian's structure did not anticipate Kuch although the language of his claim did. In other words, the Court looked at the structure upon which the Bastian claim was based to find what the structure really was, and how it differed from the Kuch structure. In accordance with the familiar rule, it refused to read the Bastian claim blindly as though it were disassociated from the Bastian disclosure.

All of that seems to us quite proper, but it might all have been done without suggesting that the disclosure of the Bastian patent was part of the prior art, as distinguished from the subject-matter of prior invention. There is nothing in the case to require any ruling that if the Bastian application had disclosed without claiming the common subject-matter, it would alone have been sufficient to anticipate or limit the Kuch patent.

Summarizing the cases in the 6th Circuit, there is but one, namely, *Lemley* vs. *Dobson,* which may be considered as an authority for the proposition that the entire disclosure of an application is in the prior art as of the filing date. The cases pre-

ceding *Lemley* vs. *Dobson* (though they use language apparently forming a basis for the decision in *Lemley* vs. *Dobson*) are in entire accord on their facts and result with the view of the 2nd Circuit. The cases following *Lemley* vs. *Dobson* apply the rule of that case without question or discussion. The *Lemley* case, therefore, stands alone in giving any consideration to our present issue.

The error in the *Lemley* case lies in its failure to recognize well-defined distinctions of patent law, e. g., it misapplies the doctrine of constructive reduction to practice and fails to distinguish between prior knowledge which negatives the fact of an invention and questions of priority which determine which of two inventors was first.

The Rule of the Second Circuit.

In the 2nd Circuit the leading case is *Sundh* vs. *Interborough* (1912), 198 Fed., 94. In that case the Court stated (page 97):

> "In order to maintain this fourth defense it must, of course, appear that the invention of the patent in suit and the invention of the prior application are the same. Thus in *Diamond Drill Company* vs. *Kelly,* supra, the patent in suit dealt with a beltfastener, the prior application with a bed-spring. That court held that even though it should be found that these were analogous arts, and that the presence of either in a prior field of art left no room for invention in the production of the other, it could not be said that both had invented the same thing. But it does not fol-

low that the two devices must be Chinese copies of each other to warrant the application of this particular defense."

The Court then proceeded to compare the actual devices disclosed in the respective applications, and stated (page 98):

"* * * The substantial invention of each patent is the invention set forth in the claims when such claims are construed in the light of the specifications. We may best compare the third claims of both patents.

* * * * * * *

"Each of these claims reads with great precision upon the devices of both patents."

The ruling of this case, set forth in the vigorous language of Hon. E. Henry Lacombe, one of the ablest jurists produced by the State of New York, is that prior invention is proven by a copending patent of earlier filing date, only when the *invention* of the copending patent, described as the invention in the specification and claimed as the invention in the claims of that patent, is the same as that described and claimed in the patent in suit. This case has been cited as authority and its ruling applied in the following cases:

Electric Storage Battery Co. vs. *Gould Co.* (1913), 204 Fed., 280;

Siemund vs. *Enderlin* (1913), 206 Fed., 283;

Mergenthaler Linotype Co. vs. *International Co.* (1914), 229 Fed., 168;

Farmers' Handy Wagon vs. *Beaver Silo Co.* (1916), 236 Fed., 731;
Camp Bros. vs. *Portable Wagon Dump Co.* (1917), 251 Fed., 603.
Leonard vs. *Maxwell* (1917), 288 Fed., 62;
Willard vs. *Union Tool Co.* (1918), 253 Fed., 48;
Sparks-Withington vs. *E. A. Laboratories* (1924), 295 Fed., 534.

The rule of the *Sundh* case and those following it is sound on principle and consistent with the fundamentals of the patent system, and should we believe, be affirmed.

Cases in Other Circuits.

In the 7th Circuit, the leading case is *Farmers Handy Wagon Co.* vs. *Beaver, etc., Co.* (1916), 236 Fed., 731, in which it is said:

> "They are thus in the prior art as to McClure for whatever they disclose. This should, we hold, be limited to such matters as are included in their several claims, unaided by their specifications or by extrinsic evidence except where necessary to elucidate and make the same clear."

The entire discussion of the prior application by the Court in that case, therefore, is predicated on the fact that the claims of the application covered the disclosure considered. In the opinion, *Sundh* vs. *Interborough, supra,* was cited as an authority.

This case, therefore, places the 7th Circuit Court of Appeals in exact accord with the 2nd Circuit Court and in opposition to the Court of Appeals of the 6th Circuit.

In *Hamilton, etc., Co.* vs. *P. A. Geier Co.* (1916), 230 Fed., 430, the Seventh Circuit Court of Appeals recognized the distinctive nature of "anticipation," saying "as we have often held, a patent speaks as an anticipation from the date of its issue and not from the date of filing the application."

Camp Bros. Co. vs. *Portable, etc., Co.* (1917), 251 Fed., 603, reaffirms the view of the 7th Circuit, and says on page 607 with reference to the alleged prior invention:

> "Kidd's second patent could not of itself be considered an anticipation of Inks' claim, or in the prior art. Inks' application was filed August 28, 1900. Kidd's second patent was granted October 30, 1900. A patent speaks as an anticipation from the date of its issue, and not from the date of application for the patent (citing cases). Nor is what is the quoted part of the specification of Kidd's second patent to be regarded in the light of a prior disclosure or publication of the Inks invention, for at the time Inks filed his application Kidd's second patent had not been granted, and neither Inks nor the public had any right of access to Kidd's application (citing cases).
>
> * * * * *

And on page 608:

> "But Kidd's two claims made and allowed, as they appear in his patent, have no refer-

> ence to a structure wherein there is simultaneity of operation of the dumping and elevating functions actuated by a common source of power as in Inks' claim 1. Although, as we have seen, Kidd's specification says in effect that this may be done, there is not in the specification or the grant, described, claimed, or patented to him, any device for doing it, and, of course, he could have had no patent for the function."

The view taken in the 1st Circuit as expressed in *Automatic* vs. *Pneumatic,* 166 Fed., 288 (see *ante,* page 22), is in accord with that of the 2nd Circuit and fundamentally opposed to that in the 6th.

In the 9th Circuit, *Willard* vs. *Union Tool Co.* (1918), 253 Fed., 48, proceeds upon the basis that "When two patents for the same invention have been issued to independent inventors, the rule is, * * *." This is in entire accord with the rule laid down in *Sundh* vs. *Interborough,* supra, in the 2nd Circuit; that case was cited as an authority but the decision turned on certain fact testimony.

The 3rd Circuit is also in accord. As expressed by Judge Archbald in the case of *Diamond Drill Co.* vs. *Kelly Bros.* (1902), 120 Fed., 282, at 287:

> "The defense that the patent has been anticipated is one thing, and that the patentee was not the original inventor is quite another, and the proofs bearing on each are equally separate and distinct. In the present instance, as between the Maier patent and the one in suit, we have, at most, the same principle applied to different subjects, a bed

spring and a belt fastener. It may be that the one which was patented first would be held to anticipate the other, although, as I have indicated, this is not my view; but it could not be said that either patentee, as against the other, was or was not the first inventor. In accordance with this, not one word has been offered to show that Maier was the original discoverer of this belt clasp, any more than that he or anyone else ever made any prior use of it; and, whatever be the allegations of the answer, that is not what is really contended for. He patented one device, and Jackson another, and each, so far as the other was concerned, was first in his own line. The only question raised is whether Maier's patent, assuming that it would negative the novelty of the Jackson, was prior in date of issue. It is clear that it was not, and that is the end of it. The case of *Barnes Automatic Sprinkler Co.* vs. *Walworth Mfg. Co.*, 9 C. C. A., 154, 60 Fed., 605, is not at variance with this view, because the issue there was who was the real inventor of the very invention in suit, which is entirely different."

The other case of *Diamond Drill Co.* vs. *Kelly Bros.* (1903), 120 Fed., 295, also decided by Judge Archbald, is not in conflict with this view, as in that case prior invention was proved by an actual machine, and the application was offered merely as corroborative to show the existence of certain parts as of the date when the application was filed. On page 298, Judge Archbald says:

"On the other hand, there can be no question as to the existence of the Henry M. Jackson machine as early as July 16, 1896, when he applied for his first patent, for the diagrams which accompanied the application show it exactly as it now is, except that the jaws are v-shaped, instead of being serrated."

In the case of *Union Typewriter Co.* vs. *L. C. Smith and Bros.* (1909), 173 Fed., 288, 291, Judge Archbald says:

"It is immaterial, in view of this, to inquire just when the invention was conceived, or at what date there was a reduction to practice, or whether due diligence was used, of which considerable evidence has been given, and which has been extensively discussed. These are important in interference proceedings, or where an issue as to priority between different inventors for the same invention is raised, but not where there is a mere comparison with other patents to determine the novelty of the device. Nor are the dates of the applications of alleged anticipating references of any account in such a case. A patent takes rank as a publication, negativing novelty, only when it comes out. Bates vs. Coe, 98 U. S., 31, 25 L. Ed., 68; Diamond Drill Co. vs. Kelly (C. C.), 120 Fed., 282; Eck vs. Kutz (C. C.), 132 Fed., 758, 764. A mere application has no such effect."

The rule of these cases has been affirmed by the Circuit Court of Appeals for the 3rd Circuit in

E. H. Freeman vs. *Johns Pratt* (1913), 204 Fed., 288, and in the recent case of *Ladd* vs. *W. & H. Walker* (1925), 7 Fed., 2nd, 72, 78.

The Practice in the Patent Office.

Rule 75.

The practice of the Patent Office under Rule 75 (Appendix, page vi) was, as petitioner has urged, for sometime in harmony with the view of the Sixth Circuit, but was, in 1918, brought into accord with the view of the Second Circuit and with the practice of the Patent Office in declaring interferences under Rule 96.

In the year 1914 Mr. Thomas Ewing, then Commissioner of Patents, read before the Patent Office Society and published in the Report of the American Bar Association (1914, pages 942-962), a paper entitled "The Bearing of the Contract Theory of Patents on Certain Defenses" in which he discussed the question now under consideration and said (page 961):

> "In its treatment of patents as anticipations from the date of application, the office departs more widely from the practice of the Courts than at any other point.
>
> *Ex parte Eddleblute,* 1890 C. D., 124;
> *Millet & Reid* vs. *Duell,* 1901 C. D., 410.
>
> It would seem to follow from the foregoing discussion that the office should do away with the requirement of Rule 75, that an inventor against whom a patent has been cited which shows but does not claim the invention which

the applicant claims shall swear back of the filing date of the patent cited. I have not had occasion officially to pass upon this question."

In *ex parte Thomas,* 251 O. G., 839; 1918 C. D., 11, the question came directly before Commissioner Newton, and after a very full discussion of all the cases, he said (pages 33-4):

"What should be the effect of the theory here propounded upon the treatment of applications under Rule 75? In view of all of the authorities and in view of the reasons upon which the theory is grounded it would be going too far in the direction of rejecting applications to say that an application should be rejected in all cases on a copending patent if it disclosed the invention claimed so nearly that the difference did not require invention. The rule stated in *Diamond Drill Co.* vs. *Kelley Bros.* and *Sundh Co.* vs. *Interborough Co.* that the prior invention must be 'the very invention' in controversy necessarily results from the fact that the issue is an issue of priority; but *Sundh Co.* vs. *Interborough Co.,* after stating that rule adds:

> But it does not follow that the two devices must be Chinese copies of each other to warrant the application of this particular defense.

Rejection under Rule 75 when the invention in controversy and the prior invention shown are not identical is authorized by a number

of the decisions above cited, and, as here conservatively stated, it is opposed by none. I look upon the existing practice in declaring interferences as a convenient standard for comparison. Perfect resemblance is not and ought not to be required for the institution of an interference; but there is not, when one of the conflicting cases is a patent, the opportunity to secure the expression of conflicting subject-matter in identical or nearly identical claims which exists in the case of interfering applications, and the propriety of rejection under Rule 75 does not depend upon the same relation between claims that is requisite for the declaration of an interference under the present practice. I consider that an application should be rejected on a copending patent, under Rule 75, if an interference in fact, *based upon the claims in the application and the subject-matter disclosed in the patent which is germane to the invention claimed therein,* the counts of which might be broader than or otherwise different from the claims in the application, provided they did not omit a 'material and substantial' feature of those claims, would exist if both cases were applications, irrespective of the claims in the patent." (Emphasis ours.)

The soundness of this decision was challenged in *ex parte Allen,* 267 O. G., 487, 1919 C. D., 105, but was affirmed and explained in its application to that case.

The case of *ex parte Hammond and Hammond,* 301 O. G., 1051, 1922 C. D., 15, decided July 31,

1922, in its second syllabus, and in some of its language, seems to be in conflict with *ex parte Thomas;* but in practical application it is not. There the prior patent, issued on an earlier application during the pendency of the application for patent which the Commissioner was considering, had issued to the same inventor. The Commissioner quite properly held that the patentability of the subject-matter before him must be measured by its departure from the subject-matter of the earlier patent, saying:

> "Where the prior patent, as in the present case, discloses only a single species of the invention and is issued to the same inventor who seeks a second patent, the prior patent is a bar to any subsequent claim for a construction actually disclosed in that patent *and reached by any of its claims.* If a second patent is to be granted, what is claimed therein must involve invention over the structure embraced in the *claims* of the prior patent. The foregoing is stated after a full consideration of the holding in ex parte Thomas." (Emphasis ours.)

Rule 96.

This rule of Patent Office Practice determines when two co-pending applications shall be put in interference, and it provides that:

> "96. Whenever the claims of two or more applications differ in phraseology, but relate to substantially the same patentable subject-matter, the examiner, when one of the

applications is ready for allowance, shall suggest to the parties such claims as are necessary to cover the common invention in substantially the same language * * *."

In *Myers* vs. *Brown*, 1904 C. D., 445, Commissioner Allen said:

"Prior to the promulgation of amended Rule 96 it had become the practice to suggest claims to an applicant who had merely disclosed the invention either in his specification alone or in his drawing alone, or in both the specification and drawing, but had failed to file any claim at all based upon such disclosure. Experience had shown the desirability of discontinuing this practice, and amended Rule 96 was promulgated with that end in view.

In this case while the claim presented by Brown differs in some respects from those presented by Myers, it is clear that both applicants presented their respective claims for the purpose of covering substantially the same subject-matter of invention."

This was quoted with approval by Commissioner Moore in *ex parte Mercer*, 1913 C. D., 195, 196.

If it were a fact that the existence of an unclaimed disclosure in a pending application is conclusive evidence that the subject-matter of that disclosure was invented by the applicant or was within public knowledge at the date of the filing of the application, then the Patent Office could find no excuse for allowing claims covering that

subject-matter to another applicant without declaring an interference. The practice under Rule 96 is a tacit recognition of the fact that it is safe to assume that what a man does not claim he has not invented. It is at the same time a practical repudiation of the idea that this subject-matter is part of the prior art or was "known" within the meaning of Sec. 4886, as of the filing date.

To Say that the Unclaimed Subject-Matter of a Pending Application is Evidence of Completed Invention or that it is a Part of the Prior Art or that it is Knowledge Within Sec. 4886 is Inconsistent with Many Other Rules of the Patent Law.

It is inconsistent with the rule that an abandoned application is not evidence of a completed invention or of the prior art or of prior knowledge. The thousands of abandoned applications in the Patent Office records are not treated as part of the prior art or as prior "knowledge." They are not examined by the Patent Office Examiners in determining the novelty or patentability of the subject-matter of pending applications.

The Corn Planter Patent (1874), 23 Wall., 181;
Lyman vs. *Lalor* (1874), 12 Blatch., 303;
Northwestern, etc., Co. vs. *Philadelphia, etc., Co.* (1874), 1 Ban. & A., 177;
Webster vs. *Sanford,* 1888 C. D., 92.

Subject-matter disclosed in a patent but not claimed therein is no more patented than it is in an abandoned application.

Westinghouse, etc., vs. *Stanley Instrument Co.* (1905), 138 Fed., 823;
General Electric vs. *Alexander* (1922), 280 Fed., 852.

It is inconsistent with the rule that a conception, even though evidenced by a written description, is not a complete invention and is not a valid basis for a patent claim until diligently reduced to practice by actually building the machine or by asserting the right to a patent (ante, page 37).

It is inconsistent with the rule that an existing but unpublished written description of the invention in this country is not prior knowledge in this country (ante, page 37).

It is inconsistent with the rule that an invention which has been completed by reduction to practice is not knowledge within this country and not a bar to a patent to a subsequent inventor if that completed invention has been concealed.

Bates vs. *Coe* (1878), 98 U. S., 31, 46;
Kendall vs. *Winsor* (1859), 21 How., 322;
Mason vs. *Hepburn* (1898), 13 App. D. C., 86.

It is inconsistent with the rule that an invention which has been abandoned after reduction to practice is not a bar to a patent to a subsequent inventor.

Gayler vs. *Wilder* (1850), 10 How., 477;
Duncan vs. *Shelly* (1920), 263 Fed., 639.

It is inconsistent with the rule that an accidental or incidental use is not a bar to a patent

to a subsequent inventor if the prior user did not realize the usefulness and value of that which he had accidentally used.

Tilghman vs. *Proctor* (1881), 102 U. S., 707;
Munising Paper Co. vs. *Amer. Sulph. Pulp. Co.* (1915), 228 Fed., 700, 703.

It is inconsistent with the practice of the Patent Office in public use proceedings. In these proceedings a mere *prima facie* case is not enough to prevent the issuance of the patent. When a *prima facie* case is made out by affidavits setting forth the facts in full, the Patent Office will notify the applicant to show cause why a public use proceeding should not be instituted.

In re Van Ausdal, 1900 C. D., 74.

Thereafter testimony is taken as in an interference proceeding to completely establish the alleged prior use.

In re Kephart, 1903 C. D., 137.

It is in fact inconsistent with the practical purpose of our patent system and with the practical interpretation that system has enjoyed. It is based rather on a metaphysical examination of the state of human knowledge as it embraces all things known to any man, rather than a practical examination of the state of human knowledge as it actually exists in the useful arts.

Petitioner asserts error in the Court below on three grounds, which we shall briefly discuss in order.

The first alleged ground of error is: the Court below erred:

> "1. In assuming that under the fourth defense of R. S., 4920, it was necessary to show that Clifford was the 'first inventor,' whereas the statute simply requires proof that Whitford 'was not the original and first inventor.' No *inter partes* question of priority of invention is involved in this defense."

This assertion of error seems to us extraordinary in the light of the fact that the defense pleaded is that Clifford was the first inventor. That being the defense pleaded, it was reasonable for the Court below to assume that petitioner had undertaken to prove, and that it must prove that Clifford *was* the first inventor.

The practical effect of petitioner's first point is, however, to transfer the discussion from the defense pleaded to a defense not pleaded, i. e., the defense that the invention was "known" prior to the alleged invention of Whitford.

That defense we have already discussed, and in discussing it we have attempted to avoid confusing it with the other defense "prior invention."

The second alleged ground of error is: the Court below erred:

> "2. In overlooking the presumption of law that what Clifford disclosed and did not claim

was old and known when he filed his application."

We do not think there is any such presumption. The extent of the presumption which arises with respect to Clifford's disclosure is fully and precisely stated by this Court in *Miller* vs. *Brass Co.* (1882), 104 U. S., 350, 352 (quoted in *Underwood* vs. *Gerber* (1893), 149 U. S., 224, 230), as follows:

> "It is a declaration that that which is not claimed is either not the patentee's invention or, if his, he dedicates it to the public."

The expressions quoted by petitioner from the opinion of this Court in *Mahn* vs. *Harwood* (112 U. S., 354), and from the decision of the Court of Appeals of District of Columbia in *Millett and Reed* vs. *Duell* (18 App. D. C., 186, Petitioner's Brief, page 8), do not go beyond this. They are to the same effect as *Miller* vs. *Brass Co.*, though perhaps less precise in statement.

There is no logical basis for the suggestion that failure to claim gives rise to any presumption that the unclaimed matter was old and known when the application was filed; since failure to claim is equally consistent with the idea that the unclaimed matter was derived from an independent inventor, as in the case of Davis' disclosure in *Electric Controller Co.* vs. *Westinghouse, ante.*, page 31, or as in the present case.

It would certainly be absurd to say that failure to claim gives rise to any presumption of law or any non-rebuttable presumption of fact that the subject matter was old in the art. Take the very

case at bar. Although the petitioner averred that the subject-matter claimed in the Whitford patent was old in the art, it did not succeed in proving that and finally came to rely upon the defense it is relying upon here—that the subject-matter in question was an inventive advance over the state of the art, but that Clifford, and not Whitford, was the first inventor.

The third alleged ground of error is: the Court below erred:

> "3. In overlooking the inequity of the grant to Whitford of a monopoly which would deprive Clifford of the right to use important features of his own device and deprive the public of the right to use what was disclosed in Clifford's prior application and which was either known to Clifford to be old, or, if invented by Clifford, deliberately dedicated to the public."

This assignment of error begs the question by assuming that Clifford has been proved to be the first inventor. But even in a case where it appeared that a man was the first to conceive of the invention and the first to describe it in a patent application, if he had not otherwise given it to the public by reducing it to practice or by publication, and he did not claim it, we can see no inequity in the grant of the patent to another original inventor, who later described and claimed the invention in an allowable application, brought his application to allowance and got his patent. The public would not be deprived of anything that it already had, and would not be concerned.

We utterly reject the suggestion that the description of it in a pending patent application without claiming it is in any sense the giving of a completed invention to the public.

Does Abandonment Necessarily Accrue to the Public?

On page 9 of petitioner's brief, it is stated that no case has been found in which abandonment by the first inventor, who has reduced his invention to practice, ever "entitles" a later inventor to a patent for the invention. With this we agree only if the invention has actually come into the possession of the public. In that case it constitutes part of the knowledge of the public and a question as to whether a later inventor has made the invention or not will be judged on a basis of that as part of the knowledge of the art. But any such abandonment or dedication to the public necessarily dates from the time when that invention became available to the public as a completed and useful thing.

It is no doubt confusing to use the word "abandonment" in this sense as its only significance must be that the inventor does not claim the reward of patent, that is, abandons any right he may have had to secure a monopoly of the invention for himself. Where the invention has in fact been abandoned or concealed the courts have consistently held that it was not a bar to a later inventor's right to a patent.

As we have previously pointed out (*ante*, pages 17, 24, 65), there is a whole line of cases which hold that the mere fact of completed invention will not

defeat the later inventor's right to a patent if it appears that the public did not have that prior invention available for use.

We have also pointed out (*ante*, page 34), that dedication to the public by not claiming in a patent application takes effect only as of the time when the patent issues, viz., the time when the public actually becomes aware of the matter unclaimed, and even then it is a defeasible right as the inventor may enter and secure to himself the previously unclaimed subject matter.

The particular point of interest here is that the question of first invention is not one of metaphysical consideration of what may be in someone's mind, or in hidden documents, or what may be ultimately given to the public from such things; but is rather the very practical consideration of what has actually come into the posession of the public and who brought it into the public's possession first. This rule is, as we have stated, subject only to the single qualification that one independent inventor who was the first to conceive and who diligently reduced to practice, may prevail over another independent inventor who was actually the first to succeed in reducing to practice, or who was the first to file his application claiming a patent for the invention.

On page 28 of petitioner's brief it is stated that prior knowledge or use by a single person is sufficient to defeat a patent, and that the number is immaterial. We agree with this and with the cases which are cited as in every case the knowledge was of the physical thing which was actually used in such a way that it was available to the public. The famous cases of this court on pub-

lic use for more than two years prior to the application are also in accord with this view, e. g., the corset case, *Egbert* vs. *Lippmann*, 104 U. S., 333.

The suggestion made by petitioner on page 36 of its brief that "the adoption of the theory of the court below that a claim is necessary to evidence completion of an invention would increase litigation and create confusion in the patent office and in the courts" is quite evidently based on a misconception of the doctrine of constructive reduction to practice, and proceeds upon the assumption that the time of the constructive reduction to practice is the time at which the claim is made. As we have previously pointed out, (*ante*, page 26), this has nothing to do with it as the claim may be inserted either by amendment in the original application, or by reissue, and in every case vitalizes the original disclosure so as to make it evidence of a constructive reduction to practice as of the time when the application was filed. The rule is exceedingly simple in application and is essentially sound in principle, and no confusion can *possibly result*.

The petitioner, concluding, suggests on page 40 that Whitford simply escaped the vigilance of the patent office and that his patent was inadvertently issued. This suggestion must be completely rejected for the reason that, as we have previously pointed out (*ante*, page 62), under Rule 96 the patent office would never have declared an interference between Clifford and Whitford as they were claiming entirely different inventions.

In the appendix of petitioner's brief (page 42),

a statement is made which we believe is quite inaccurate, viz:

> "From the beginning of patent litigation in this country the courts have almost universally held that prior knowledge of an invention evidenced by written description or drawings sufficient to enable a skillful workman to practice the invention would defeat a patent granted to one who conceived the invention later."

If by this it is meant that an inventor would be allowed to go back to his date of conception where there is a contest of priority and may prove his conception by drawings and descriptions, we are in accord, but if petitioner means that prior knowledge may be evidenced by unpublished written descriptions or drawings, we believe it is wrong, as the authorities cited by us (*ante*, page 37), show. Nor does the petitioner cite authorities in support of this proposition. The authorities which are cited on pages 42 and 44 clearly support the contrary proposition.

The fallacy of petitioner's assertion that mere sketches or descriptions constitute such knowledge as will bar an inventor's right to a patent is well illustrated by interference contests. Interferences are often lost because of lack of diligence where earlier conception has been fully established by complete sketches and description. The rule contended for by petitioner would bar the winning party's right to a patent because of prior knowledge established by his defeated adversary's sketches and description.

The Brief of the Solicitor General as AMICUS CURIAE.

As appears from the statement made on page 4 of this brief, the whole brief proceeds on a misconception or disregard of the actual question raised by the pleadings. It attempts to establish that the unclaimed disclosure in a patent application is evidence of *knowledge* sufficient to invalidate a patent granted to an inventor who applied for a patent for his invention subsequent to the filing of the application relied upon.

We state with confidence that this mere disclosure in a patent application does not constitute knowledge within the meaning of Sec. 4886, such as will bar the grant of a patent to an original inventor, and this subject has been fully discussed (*ante*, page 36).

This brief, as well as that of petitioner, has as basic errors a misconception of the doctrine of constructive reduction to practice and a misconception of the presumption of dedication to the public, and these errors have led to much confusion.

We believe that it is unnecessary to discuss the brief point by point, as the matters on which we disagree have been developed herein.

We call attention, however, to one vital case of fallacious reasoning—paragraph VI of the summary of argument (page 5):

> "That which is disclosed in the application for a patent, but not claimed, is presumed to have been known before the applicant's act of invention as set out in the limitation of his claim;"

At most, this presumption can be raised only against the applicant himself. If the statement is intended to mean more than this, it can mean only that it was known only in the metaphysical sense and then only to the applicant. The statement then continues:

> "this presumption must then necessarily become a conclusion as to any later patent."

Aside from the fact that we cannot see any reason at all for this or detect its logic, we have pointed out (*ante*, page 33), that there is no such conclusion or conclusive presumption. The statement continues further:

> "and this Court has consistently held that no inventor is a true and first inventor, and hence entitled to a patent, if the thing patented or sought to be patented was known to any other before his application."

This would be true only if "invention" be substituted for the last word "application." But it has no connection with what preceded it, as the word "known" here referred to means known in the physical sense—known because perceived—whereas in the preceding portion of its statement, the word "known" means known in the metaphysical sense or known because conceived.

On page 47, *et seq.*, of this brief, certain cases of this court are cited and discussed as "supporting the petitioner's contention of the invalidity of a later patent when the invention is disclosed in an earlier application, even if not claimed."

In *Brown* vs. *Davis* (1886), 116 U. S., 237, the Court did not hold the patent invalid on the basis of the disclosure in a prior application. It was held invalid on the basis of a prior machine. The Court said:

> "He testifies to the use of two of them and and says they worked perfectly, so far as changing the rank of the drill was concerned. This was a completed invention. The idea of changing the relative positions of the shoes by having one row of them stationary and moving the other, which is the idea developed in the defendant's machine, was fully embodied in Powers' machine."

The Court then referred to the fact that Powers, the prior inventor, filed application for a patent, and that the patent fully described the invention, but did not make this the basis of its decision. In fact if the Court had, it would not help petitioner, as the Court stressed the fact that the claim covers the apparatus which was relied on as an anticipation.

In *Yale Lock Co.* vs. *Greenleaf* (1886), 117 U. S., 554, the Court held that the patent was anticipated by a physical lock which was introduced in evidence, which had been built and used prior to the invention of the patent in suit. Here again the Court referred to the fact that a patent had been applied for, but seems to have made nothing of that fact. The Court said:

> "The testimony showed • • • that locks made substantially in accordance with the

description contained in Rickards' specification were manufactured and sold by Evans & Watson, safe makers, of Philadelphia, as early as the year 1853. A copy of the application of Rickards is found in the record, and one of the locks made by Evans & Watson in 1853 was produced as an exhibit upon the trial in this court. * * *

A comparison of the specification and model of the plaintiff's patent with the application of Rickards and the lock made by Evans & Watson shows that *the device of Rickards and the lock of Evans & Watson were an anticipation of the invention covered by the first claim of the plaintiff's patent.*" (Emphasis ours.)

The language quoted in the brief of Amicus Curiae (page 49), referring to *Pope Mfg. Co.* vs. *Gormully*, 1892), 144 U. S., 238, 244, is at best *obiter dicta* as the case was decided on other grounds. The Smith patent was referred to because it covered a structure practically the same as the device used by the defendant. The Court said:

"The operation of this [Smith] patent is practically the same as that of the device used by the defendant.

This device appears to be, however, a minor variation upon the English provisional specification of 1853 to Chinnock * * *.

Defendants are the owners of and manufacturing under this [Chinnock] patent, and the fact that this and the Peters' applications

were pending before the Patent Office at the same time, and that patents were issued upon the same day, is strong evidence that they were not even considered as competitive inventions."

The decision in *Olin* vs. *Timken* (1894), 155 U. S., 141, was not on the basis of a prior application (although the Court referred to the application for some reason which is not brought out in the opinion, page 154), but was on the basis of a prior use. The actual springs relied upon were introduced in evidence, together with testimony as to the date of their manufacture and use.

The case of *Roberts* vs. *Ryer* (1875), 91 U. S., 150, is quoted at length as being a recognition by this Court that an application may be relied on as of its filing date whether the disclosure is claimed or not. A consideration of this case shows not only that this was not the holding of the Court but also that in no sense could it be even a recognition by the Court of that principle. In the first place, the alleged anticipating patent to Lyman was for exactly the same invention as the patent in suit, and the Court arrived at this conclusion by considering the claims. Sanford (whose reissue patent was in suit), obtained a patent before Lyman, but Lyman's patent was issued over Sanford as a reference. Then Sanford reissued his patent so as to distinguish from the machine patented to Lyman. It was the reissued patent which was in suit, and the Court held that the distinction made by Sanford over Lyman in the reissued patent was not a patent-

able invention, and therefore held the patent invalid.

Cochran vs. *Zimmerman* (1892), 53 Fed., 801, has been previously discussed (*ante*, page 42).

Sundh vs. *Interborough*, the leading case in the Second Circuit on the question at bar, is referred to repeatedly in the brief of the Amicus, and in doing so, statements are made that are directly contrary to the fact, so much so that we are at a loss to account for them. It is said unequivocally (page 20 and page 53), that the two patents under consideration in that case did not claim the same invention, that the patent of the earlier filing date "did not, as a matter of fact, *claim* the subject-matter of the claims held to be invalid." The very basis for the decision was that both patents claimed the same subject-matter, and the discussion makes it as clear as words can that otherwise an opposite conclusion would have been reached; the Court was meticulously careful to show that both patents claimed the same invention, even to the extent of quoting claims from the two patents in parallel columns.

One further point which may be noted is that there are many respects in which the briefs for petitioner and for the *amicus curiae* are not in accord. For instance, petitioner says (page 17), the cases in the Seventh Circuit leave the question at bar in doubt, whereas the *Amicus* says (page 2), just as we have herein, that the Court of Appeals of the Seventh Circuit stands squarely with that of the Second Circuit in opposition to the ruling which has been adopted in the Sixth Circuit.

CONCLUSION.

We submit that for the reasons fully developed in the foregoing, the interpretation of the law by the Courts of the 1st, 2nd, 3rd, 7th and 9th Circuits, consistently applied in the Courts of those Circuits for many years, and expounded most clearly in *Sundh* vs. *Interborough* and the present case in the Second Circuit and in the *Farmers Handy Wagon case* in the Seventh Circuit, is the sound one, conforming to the fundamental principles of the patent law, and as such should be adopted rather than that of the Sixth Circuit as set forth in *Lemley* vs. *Dobson*.

In any event, the decree of the lower Court in this case should be affirmed because the sole defense before the Court on the pleadings is that of prior invention by Clifford; because no proof is offered that Clifford was the prior inventor or even that he ever made the invention under consideration; and because if there is any presumption that Clifford made that invention by reason of the disclosure in his application of a construction embodying it, that presumption is overcome by the testimony in the record before the Court.

Respectfully submitted,

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Dec. 30, 1925.

APPENDIX.

Revised Statutes.

SEC. 4886. Any person who has invented or discovered any new and useful art, machine, manufacture, or composition of matter, or any new and useful improvements thereof, not known or used by others in this country, before his invention or discovery thereof, and not patented or described in any printed publication in this or any foreign country, before his invention or discovery thereof, or more than two years prior to his application, and not in public use or on sale in this country for more than two years prior to his application, unless the same is proved to have been abandoned, may, upon payment of the fees required by law, and other due proceeding had, obtain a patent therefor.

SEC. 4888. Before any inventor or discoverer shall receive a patent for his invention or discovery, he shall make application therefor, in writing, to the Commissioner of Patents, and shall file in the Patent Office a written description of the same, and of the manner and process of making, constructing, compounding, and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art or science to which it appertains, or with which it is most nearly connected, to make, construct, compound, and use the same; and in case of a machine, he shall explain the principle thereof, and the best mode in which he has contemplated applying that principle, so as to distinguish it from other inven-

tions; and he shall particularly point out and distinctly claim the part, improvement, or combination which he claims as his invention or discovery. The specification and claim shall be signed by the inventor.

SEC. 4889. When the nature of the case admits of drawings, the applicant shall furnish one copy signed by the inventor or his attorney in fact, which shall be filed in the Patent Office; and a copy of the drawings to be furnished by the Patent Office, shall be attached to the patent as a part of the specification.

SEC. 4890. When the invention or discovery is of a composition of matter, the applicant, if required by the commissioner, shall furnish specimens of ingredients and of the composition, sufficient in quantity for the purpose of experiment.

SEC. 4891. In all cases which admit of representation by model, the applicant, if required by the commissioner, shall furnish a model of convenient size to exhibit advantageously the several parts of his invention or discovery.

SEC. 4892. The applicant shall make oath that he does verily believe himself to be the original and first inventor or discoverer of the art, machine, manufacture, composition, or improvement for which he solicits a patent; that he does not know and does not believe that the same was ever before known or used; and shall state of what country he is a citizen. Such oath may be made before any person within the United States authorized by law to administer oaths, or, when the

applicant resides in a foreign country, before any minister, chargé d'affaires, consul, or commercial agent holding commission under the Government of the United States, or before any notary public, judge, or magistrate having an official seal and authorized to administer oaths in the foreign country in which the applicant may be, whose authority shall be proved by certificate of a diplomatic or consular officer of the United States.

SEC. 4893. On the filing of any such application and the payment of the fees required by law, the Commissioner of Patents shall cause an examination to be made of the alleged new invention or discovery; and if on such examination it shall appear that the claimant is justly entitled to a patent under the law, and that the same is sufficiently useful and important, the commissioner shall issue a patent therefor.

SEC. 4904. Whenever an application is made for a patent which, in the opinion of the commissioner, would interfere with any pending application, or with any unexpired patent, he shall give notice thereof to the applicants, or applicant and patentee, as the case may be, and shall direct the primary examiner to proceed to determine the question of priority of invention. And the commissioner may issue a patent to the party who is adjudged the prior inventor, unless the adverse party appeals from the decision of the primary examiner, or of the board of examiners in chief, as the case may be, within such time, not less than twenty days, as the commissioner shall prescribe.

SEC. 4918. Whenever there are interfering patents, any person interested in any one of them, or

in the working of the invention claimed under either of them, may have relief against the interfering patentee, and all parties interested under him, by suit in equity against the owners of the interfering patent; and the court, on notice to adverse parties, and other due proceedings had according to the course of equity, may adjudge and declare either of the patents void in whole or in part, or inoperative, or invalid in any particular part of the United States, according to the interest of the parties in the patent or the invention patented. But no such judgment or adjudication shall affect the right of any person except the parties to the suit and those deriving title under them subsequent to the rendition of such judgment.

SEC. 4920. In any action for infringement the defendant may plead the general issue, and having given notice in writing to the plaintiff or his attorney thirty days before, may prove on trial any one or more of the following special matters:

FIRST.—That for the purpose of deceiving the public the description and specification filed by the patentee in the Patent Office was made to contain less than the whole truth relative to his invention or discovery, or more than is necessary to produce the desired effect; or,

SECOND.—That he had surreptitiously or unjustly obtained the patent for that which was in fact invented by another, who was using reasonable diligence in adapting and perfecting the same; or,

THIRD.—That it has been patented or described in some printed publication prior to his supposed invention or discovery thereof, or more than two

years prior to his application for a patent therefor; or,

FOURTH.—That he was not the original and first inventor or discoverer of any material and substantial part of the thing patented; or,

FIFTH.—That it had been in public use or on sale in this country for more than two years before his application for a patent, or had been abandoned to the public.

And in notices as to proof of previous invention, knowledge, or use of the thing patented, the defendant shall state the names of the patentees and the dates of their patents, and when granted, and the names and residences of the persons alleged to have invented or to have had the prior knowledge of the thing patented, and where and by whom it had been used; and if any one or more of the special matters alleged shall be found for the defendant, judgment shall be rendered for him with costs. And the like defenses may be pleaded in any suit in equity for relief against an alleged infringement; and proofs of the same may be given upon like notice in the answer of the defendant, and with the like effect.

SEC. 4923. Whenever it appears that a patentee, at the time of making his application for the patent, believed himself to be the original and first inventor or discoverer of the thing patented, the same shall not be held to be void on account of the invention or discovery, or any part thereof, having been known or used in a foreign country, before his invention or discovery thereof, if it had not been patented or described in a printed publication.

Rules of Practice in the United States Patent Office.

48. When an applicant presents a claim for matter originally shown or described but not substantially embraced in the statement of invention or claim originally presented, he shall file a supplemental oath to the effect that the subject matter of the proposed amendment was part of his invention, was invented before he filed his original application, was not known or used before his invention, was not patented or described in a printed publication in any country more than two years before his application, was not patented in any foreign country on an application filed by himself or his legal representatives or assigns more than twelve months prior to his application, was not in public use or on sale in this country for more than two years before the date of his application, and has not been abandoned. Such supplemental oath must be attached to and properly identify the proposed amendment.

In proper cases the oath here required may be made by an executor or administrator of a deceased person or a guardian conservator, or representative of an insane person. (See rule 46.)

75. When an original or reissue application is rejected on reference to an expired or unexpired domestic patent which substantially shows or describes but does not claim the rejected invention, or on reference to a foreign patent or to a printed publication, and the applicant shall make oath to facts showing a completion of the invention in this country before the filing of the application on which the domestic patent issued, or before the

date of the foreign patent, or before the date of the printed publication, and shall also make oath that he does not know and does not believe that the invention has been in public use or on sale in this country, or patented or described in a printed publication in this or any foreign country for more than two years prior to his application, and that he has never abandoned the invention, then the patent or publication cited shall not bar the grant of a patent to the applicant, unless the date of such patent or printed publication be more than two years prior to the date on which application was filed in this country.

96. Whenever the claims of two or more applications differ in phraseology, but relate to substantially the same patentable subject matter, the examiner, when one of the applications is ready for allowance, shall suggest to the parties such claims as are necessary to cover the common invention in substantially the same language. The examiner shall send copies of the letter suggesting claims to the applicant and to the assignees, as well as to the attorney of record in each case. The parties to whom the claims are suggested will be required to make those claims and put the application in condition for allowance within a specified time in order that an interference may be declared. Upon the failure of any applicant to make the claim suggested within the time specified, such failure or refusal shall be taken without further action as a disclaimer of the invention covered by the claim, and the issue of the patent to the applicant whose application is in condition for allowance will not be delayed unless the time for making the claim and putting the application in condi-

tion for allowance be extended upon a proper showing. If a party make the claim without putting his application in condition for allowance, the declaration of the interference will not be delayed, but after judgment of priority the application of that party will be held for revision and restriction, subject to interference with other applications.

Whenever it shall be found that two or more parties whose interests are in conflict are represented by the same attorney, the examiner shall notify each of said principal parties and also the attorney of this fact.

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Supreme Court of the United States

OCTOBER TERM, 1925.

No. 107.

ALEXANDER-MILBURN COMPANY,

Petitioner,

against

DAVIS-BOURNONVILLE COMPANY,

Respondent.

BRIEF

BY

THOMAS EWING

AS AMICUS CURIAE.

FILED BY LEAVE OF THE COURT.

STATES BY C. G. BURGOYNE, INC., 107 LIBERTY STREET, NEW YORK

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IN THE

Supreme Court of the United States.

ALEXANDER-MILBURN COMPANY,
Petitioner,

against

DAVIS-BOURNONVILLE COMPANY,
Respondent.

No. 107—October Term

BRIEF
of
THOMAS EWING
AS *AMICUS CURIAE.*

This brief is substantially the same as that presented to the Court below, to which reference is made in the opinion. It is presented because the case at bar involves a question of construction of the patent statute which is of large public importance.

The writer of the brief has no relation to either party in the suit, nor any interest in any case which, so far as now seen, would be affected by the decision of the case at bar.

The sections of the Revised Statutes and of the Rules of Practice of the Patent Office referred to herein are found in the appendix of the brief for respondent, to which reference is made. The sections of the Patent

Statutes of 1790 and 1793 and of the British Statute of Monopolies referred to are found in the appendix hereto.

The question discussed herein is whether the earlier in filing date of two patents, which were pending concurrently in the Patent Office, will invalidate the patent of later filing date as to common subject-matter claimed in the patent of later filing date and not claimed in the patent of earlier filing date.

There is sharp division of opinion upon this point.

The instant case, 1 F. R. 2d, 227, C. C. A. 2d Circuit;

Farmers' Handy Wagon Co. vs. *Beaver Co.*, 236 F. R., 731, C. C. A., 7th Circuit;

Lemley vs. *Dobson-Evans Co.*, 243 F. R., 391; C. C. A., 6th Circuit.

It sometimes happens that two patents are granted upon co-pending applications where an interference should have been declared. In such a case, in the absence of other proof, the patent filed later is void because of the patent of earlier filing date respecting common subject-matter.

Sundh Electric Co. vs. *Interboro Rapid Transit Co.*, 198 F. R., 94; C. C. A., 2nd Circuit;

Barnes Sprinkler Co. vs. *Walworth*, 60 F. R., 605;

Drewson vs. *Hartje Mfg. Co.*, 131 F. R., 734.

The case here under discussion differs radically from the Sundh and similar cases; for in the case under discussion the claims do not conflict and the subject-matter which is common to the two patents might be cancelled from the earlier patent without impairing it, as was actually done in one recorded case, viz: *Camp Brothers*

vs. *Portable Wagon Company*, 251 F. R., 603 (607), C. C. A., 7th Circuit.

I.

In undertaking to determine whether the rule of the 6th Circuit or the rule of the 7th and 2d Circuits is the sounder rule, the first point to be noted is that an abandoned application for patent is not an anticipation of a later patent for the same subject-matter.

> *Brown* vs. *Guild* (Cornplanter case), 23 Wall., 181.

In the Cornplanter case the Supreme Court had to deal with an alleged anticipation which they concluded was an abandoned experiment. They held that the filing of an application which was ultimately abandoned was inconsequential. The Court said:

> "It can only have a bearing on the question of prior invention or discovery. If upon the whole of the evidence it appears that the alleged prior invention or discovery was only an experiment and was never perfected or brought into actual use, but was abandoned and never revived by the alleged inventor, the mere fact of having unsuccessfully applied for a patent therefor cannot take the case out of the category of unsuccessful experiments."

This case is not cited in the Lemley opinion. *Bates* vs. *Coe* is dismissed therein with the statement that it considered evidence to sustain the third defense only (R. S., p. 4920). But in the Cornplanter case the Court was not considering a question of pleading.

The effect of this decision (1874) upon the practice in the Patent Office is not clear, though it is said to have

changed the practice of the Office. *Webster* vs. *Sanford*, 1888 C. D. 92, 94. However this may be, the fact is, that since 1884, the Office has made no searches among abandoned applications, of which there are now more than a million. During forty years no Court has challenged this practice. See *Rich-Sampliner Co.* vs. *Ensten*, C. C. A., 6th Circuit, 291 F. R., 1003, 1005.

The Supreme Court, speaking of a different question, in *Bates Refrigerating Company* vs. *Sulzberger*, 157 U. S., 1, said (page 34):

> "If * * * there be reasonable ground for adopting either one of two constructions, this Court, without departing from sound principle, may well adopt the construction which is in harmony with the settled practice of the executive branch of the Government, and with the course of judicial decision in the Circuit Courts of the United States; especially, if there be reason to suppose that vast interests may have grown up under the practice and under judicial decisions which may be disturbed or destroyed by the announcement of a different rule."

It will therefore be assumed that an abandoned application is not an anticipation.

II.

In order to sustain the rule in the Lemley case, it is necessary to find a distinction between a disclosure of subject-matter in a patent and a disclosure in an abandoned application, which will justify assigning to the patent its date of filing instead of its date of grant.

Where the patent claims the subject-matter under consideration, a distinction is at once apparent. No one questions the correctness of the conclusion in the Sundh case, or that a patent speaks from its date of filing as to

all matter claimed therein. Otherwise it would be impossible to enforce the rule against double patenting. But subject-matter disclosed in a patent and not claimed therein is no more patented than it is in an abandoned application.

Westinghouse E. & M. Co. vs. *Stanley Inst. Co.*, 138 F. R., 823.
G. E. Co. vs. *Alexander*, 280 F. R., 852.

III.

Judge Denison in the Lemley opinion says that under R. S., Section 4920, a patentee must be the first inventor and that the second of two applicants cannot fulfill this condition. This statement makes no distinction between a disclosure in a patent and a disclosure in an abandoned application. Moreover, it fails to distinguish between the popular and the statutory use of the term "first inventor."

Automatic Weighing Machine Co. vs. *Pneumatic Scale Corporation*, 166 F. R., 288, 290;
Bullock vs. *Jones*, Federal Cases No. 2132;
Northwestern Fire Ex. Co. vs. *Phila. F. E. Co.*, Fed. Cases No. 10,337, pages 397-8.

An historical statement will be helpful in elucidating the point here under discussion.

Under the English law beginning with the Statute of Monopolies, 21 Jac. 1, V., patents might be granted for "the sole working or making of any manner of new manufacture within this realm to the first and true inventor or inventors of such manufactures which others at the time of making such letters patent and grants did not use, so they be not contrary", etc. This was the law of England at the time of the Revolution and when we

established our Federal patent system. Under this statute, the "inventor" might be an importer.

Edgeberry vs. *Stephens*, 2 Salkeld 446.

This recognition of the right to import an invention and patent it has never obtained here, or certainly not since the act of 1800.

Thompson vs. *Haight*, Federal Cases No. 13957, 23 F. C. 1040, 1044.

The Act of 1790, Section 6, makes the patent "*prima facie* evidence that the said patentee or patentees was or were the first and true inventor or inventors, discoverer or discoverers, of the things so specified." The language was afterward changed to "original and first inventor" (R. S., 4920); but this new phrase does not seem to convey any special meaning different from "first and true inventor".

The Act of 1793, Sec. 6, recited as one of the defenses "that the thing thus secured by patent was not originally discovered by the patentee, or had been used or had been described in some published work anterior to the supposed discovery of the patentee." This added condition necessarily gave to the words "first and true inventor" a different meaning from what they had in the British act.

There was another distinction, since abolished. For the British statute only required that the manufacture should be new within the realm, whereas the acts both of 1790 and 1793 required that the improvement be not before known or used without regard to whether here or abroad.

These differences in meaning, however, are in no way based upon the phrase "first and true inventor" but rest upon statutory provisions which determine who may be an inventor. It seems clear therefore that the words

"first and true inventor" are fully accounted for in our statute as coming from the British Statute of Monopolies without carrying any meaning that requires a definition of inventor other than what may be derived from a reading of the statute itself.

It will not be necessary to review the reasoning of Judge Denison in detail. The following is presented as a construction of the statute which, if accepted by this Court, will lead to a conclusion at variance with the Lemley decision.

IV.

A general comment on Sections 4886 and 4920 will be of assistance in the presentation of this argument.

The two sections, R. S., Sec. 4886 and R. S., Sec. 4920, are respectively the granting clause and the defense clause of the statute. One should not be inconsistent with the other; but they are not necessarily co-extensive because defenses need not be recited in the statute. Any limitation indicated in the granting clause may be the foundation of a defense.

> *Pennock and Sellers* vs. *Dialogue,* 2 Peters, 1, 22-23.

Moreover, there are defenses not indicated in the statute which are founded upon the fundamental theory of the system.

> *Macbeth-Evans Glass Co.* vs. *General Electric Co.,* 246 F. R., 695.

Equally fundamental with that set up in the *Macbeth* case, is the defense that there are two patents for the same invention. Yet in the case of the *Barnes Sprinkler Co.,* though it is clear that the two patents under consideration were for the same invention, the Court seemed

to think it necessary to find statutory authority for this defense. Unless precluded by the form of the pleadings, the Court should have said merely that, since the Government had granted two patents for the same invention, in the absence of parol evidence the one of later filing date must be declared void. This has been held universally where two patents for the same invention have been granted to the same inventor. There is no specific statutory basis for this phase of the defense of double patenting and none is needed where there are two grantees.

Only a part of the language of Section 4886 concerns us. The invention or discovery is to be new and useful, not known or used by others in this country and not patented or described in a printed publication in this or any foreign country before applicant's invention or discovery thereof.

Every word has a definite purpose. It is as if the statute had said: The invention must be new, by which is meant that it was not known or used by others in this country, and that it had not been patented or described in a printed publication in any country at the date of the alleged invention.

"Known" means known in a physical sense as distinguished from knowledge conveyed through the printed page or by word of mouth.

> *Coffin* vs. *Ogden*, 85 U. S., 120;
> *Westinghouse* vs. *General Elec. Co.*, 207 F. R., 75.

If known be taken to be known in a physical sense, it imports into our statute the old English law of anticipation. Our addition to that law, i. e. making a publication and anticipation is added by a later clause.

This limited meaning is, it is believed, imposed by the language of Section 4886. For otherwise, to say "not known * * * or described in a printed publication" would be mere tautology.

Finally, there is nothing tautologous in the phrase "not known or used." It is true that *used* embraces everything that *known* expresses. But known is required to cover cases where the prior device, though capable of being used, was never actually used.

The clause of Sec. 4886 "unless the same is proved to have been abandoned" requires a word of discussion because of the strange meaning assigned to it in the brief filed *amicus* by the Government. Plainly these words do not refer back to anticipatory matter or to the two-year bars. They mean that one who is otherwise entitled to a patent may have lost his rights by abandonment of the invention to the public.

By the construction here suggested every part of the section is fully accounted for. So construed, the granting clause declares that anyone who has made an invention and takes proceedings in due time may obtain a patent for it if it is not already known in a physical sense in this country and if no one anywhere has secured a patent upon it or disclosed it in a printed publication. There is no more warrant in this section for setting up as a defense a patent application or a patent as of its date of application than there is for setting up the manuscript of an article as of the date when it was written or reached the editor of the publication in which it subsequently appeared. Either may be relied upon to establish a right to a patent or to sustain one of two or more rival patents; but in such cases only private rights are concerned. The general public must find support for such a defense elsewhere than in Section 4886.

Turning now to Section 4920, the first defense is merely to enforce frank disclosure. The third and fifth defenses are based on the language of Section 4886 respecting patents and printed publications, public use or sale of more than two years, and abandonment. The second and fourth defenses alone require discussion.

Rightly construed, the language in which these two defenses are set forth excludes the case of one who has obtained a patent for what is shown but not claimed in a patent granted upon a co-pending application.

Take the second defense. Such a claimant has done nothing surreptitious. He has proceeded openly under Sections 4886 and 4888 to 4893 of the Revised Statutes. Nor can it be said that the party who filed earlier was using reasonable diligence in adapting and perfecting his invention; all he has done is to show it incidentally in an application wherein he has sought to patent something else. The plain words of this defense must be strained to cover the case under discussion. And to what end? Merely to destroy the right of a man who thought enough of the invention to seek a patent upon it and pay the necessary fees, presumably with the intent of exploiting the invention.

The fourth defense covers priority, prior public use and a state of the art which leaves nothing material and substantial in what the patentee claims as an invention.

V.

Among those seeking patents, priority in time assures superiority of right. This is specifically provided in R. S., Sec. 4904, and the same rule obviously holds among rival patentees proceeding under R. S., Sec. 4918. If to this be added that there may be only one patentee of a single invention, it follows that anyone of the general public sued by one of two rival patentees may set up the prior right of one patentee against the patent of the other. But patentees are claimants. If there is no claim to common subject-matter there is not presented a case of rival patentees or conflicting or interfering patents.

Herein lies the basis of the distinction between anticipation and priority as defenses, which Judge Denison says he fails to understand. *Anticipation* is failure of

consideration for the patent. The public is already in possession of the invention which the patent purports to disclose to the public. The sufficiency of this defense in no way depends on whether or not the invention is claimed by some one other than the patentee suing or not. *Priority,* as a defense, is essentially a question of double patenting; and to the sufficiency of this defense the existence of two patents claiming the same invention is an essential condition.

To sum up the argument as to the meaning of the language of the statute, there is nothing found either in the granting clause (Section 4886), or in the defense clause (Section 4920), which requires the Court to give effect from its date of filing to a patent set up in defense respecting subject-matter disclosed but not claimed therein. To base such a holding on the second defense is to strain the language thereof and to base it on the fourth defense is to overlook the distinction between the "first inventor" in popular sense, and the "first inventor" according to a definition which is in conformity with the granting clause of the statute.

The only ground on which the court is warranted in assigning to a patent set up in defense its date of filing is that a case is presented of double patenting. In such a case the patent that is prior in date of filing is superior, in the absence of parol proof, and defeats the later patent. No statutory provision for this defense is necessary because, as a matter of fundamental principle, there can be only one patent for a single invention.

The construction adopted in the instant case and in *Farmers' Handy Wagon Co.* vs. *Beaver,* and here contended for, is not only in better accord with the statute than the construction adopted in the *Lemley* case; it is also in better conformity with the general policy of the courts respecting patents.

VI.

The primary purpose of the patent system is to advance the useful arts. This means that new implements of business or pleasure are to be put into the hands of the public. It has been demonstrated by experience that the patent system supplies an excellent method of effecting this desired end.

The public is not vitally interested in *knowing about* new things. What it demands is that it shall *have* the new things. Some one must take the risk and bear the burden of adaptation and introduction of inventions to meet the need. If a man has obtained a patent, he has contributed something toward the introduction of the thing patented. On the other hand, what is disclosed in a patent, without claiming it, is ordinarily not advanced materially toward becoming an implement in the hands of the people.

Suppose, for example, that Bell had described his telephone in a patent devoted to some new implement for teaching the deaf to speak. The public would have knowledge of the magnetic telephone; but the patent would have held out no inducement to undertake the vast expense and labor required before the telephone became an implement of household use.

If it were not true that the real public interest lies in having things that may be used rather than in having knowledge of inventions, and that the granting of patents on the whole operates to secure the introduction of new things, it would be impossible long to maintain the patent system. Yet it has been maintained and has so far commended itself to public opinion that patents have always been liberally treated by the courts.

To take one example, it is frequently said that doubt as to the presence of invention should be resolved in favor of the inventor. Unless applied with judgment, this rule would lead to the approval of the frivolous or trivial. But there is no difficulty about interpreting the

statute in a liberal spirit and resolving doubt in favor of the inventor.

There is here presented a question of construction where, without any straining of the language of the statute or of any of the principles established in the great cases which illuminate our law of patents, the doubt, if there be any, may be resolved in favor of the patentee.

The question raised in this case does not arise in numerous cases. It is however of great importance because the authoritative construction of the statute must necessarily have a direct bearing and may have a controlling bearing on the effect on the validity of patents of private memoranda, secret uses, manuscripts awaiting publication, and abandoned applications. With reference to the last alone, it may be stated that there are in the Patent Office over a million abandoned applications, twenty-five per cent. of which were first allowed and then forfeited and abandoned, indicating a disclosure therein that was deemed by the examiner to include patentable subject-matter. These applications are not in convenient form for examination and are classified according to a scheme which is rendered archaic by the lapse of time. If for any reason this court should reverse its decision in the *Cornplanter* case and hold these abandoned applications available as references, they would bring down on the art a mass of anticipatory material which would vastly increase the uncertainty, already large enough, as to the validity of any patent.

The rule of the *Farmers' Handy Wagon* case and the instant case that a patent set up as a defense speaks only from the date of its grant as to all matter disclosed but not claimed therein, is in conformity with the letter and spirit of the statute and should be approved and applied in appropriate cases.

Respectfully submitted,

THOMAS EWING
As *Amicus Curiae.*

APPENDIX.

Patent Act of 1790.

SECTION 1. Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled, That upon the petition of any person or persons to the Secretary of State, the Secretary for the Department of War, and the Attorney-General of the United States, setting forth that he, she, or they hath or have invented or discovered any useful art, manufacture, engine, machine, or device, or any improvement therein not before known or used, and praying that a patent may be granted therefor, or shall and may be lawful to and for the said Secretary of State, the Secretary for the Department of War, and the Attorney-General, or any two of them, if they shall deem the invention or discovery sufficiently useful and important, to cause letters-patent to be made out in the name of the United States, reciting the allegations and suggestions of the said petition, and describing the said invention or discovery, clearly, truly, and fully, and thereupon granting to such petitioner or petitioners, his, her, or their heirs, administrators, or assigns, for any term not exceeding fourteen years, the sole and exclusive right and liberty of making, constructing, using, and vending to others to be used, the said invention or discovery; which letters patent shall be delivered to the Attorney-General of the United States to be examined, who shall, within fifteen days next after the delivery to him, if he shall find the same conformable to this act, certify it to be so at the foot thereof, and present the letters-patent so certified to the President, who shall cause the seal of the United States to be thereto affixed, and the same shall be good and available to the grantee or grantees by force of this act, to all and every intent and purpose herein contained, and shall be recorded in a book to be kept for that pur-

pose in the office of the Secretary of State, and delivered to the patentee or his agent, and the delivery thereof shall be entered on the record and indorsed on the patent by the said Secretary at the time of granting the same.

SECTION 6. And be it further enacted, That in all actions to be brought by such patentee or patentees, his, her, or their executors, administrators, or assigns, for any penalty incurred by virtue of this act, the said patents or specifications shall be *prima facie* evidence that the said patentee or patentees was or were the first and true inventor or inventors, discoverer or discoverers, of the things so specified, and that the same is truly specified; but that nevertheless the defendant or defendants may plead the general issue, and give this act, and any special matter whereof notice in writing shall have been given to the plaintiff, or his attorney, thirty days before the trial, in evidence tending to prove that the specification filed by the plaintiff does not contain the whole of the truth concerning his invention or discovery; or that it contains more than is necessary to produce the effect described; and if the concealment of part, or the addition of more than is necessary, shall appear to have been intended to mislead, or shall actually mislead the public, so as the effect described cannot be produced by the means specified, then, and in such cases, the verdict and judgment shall be for the defendant.

Patent Act of 1793.

Section 1. Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled, That when any person or persons, being a citizen or citizens of the United States, shall allege that he or they have invented any new and useful art, machine, manufacture, or composition of matter, or any new and useful improvement on any art, machine,

manufacture, or composition of matter, not known or used before the application, and shall present a petition to the Secretary of State, signifying a desire of obtaining an exclusive property in the same, and praying that a patent may be granted therefor, it shall and may be lawful for the said Secretary of State to cause letters-patent to be made out in the name of the United States, bearing teste by the President of the United States, reciting the allegations and suggestions of the said petition, and giving a short description of the said invention or discovery, and thereupon granting to such petitioner or petitioners, his, her, or their heirs, administrators, or assigns, for a term not exceeding fourteen years, the full and exclusive right and liberty of making, constructing, using, and vending to others to be used, the said invention or discovery, which letters-patent shall be delivered to the Attorney-General of the United States, to be examined; who, within fifteen days after such delivery, if he finds the same conformable to this act, shall certify accordingly, at the foot thereof, and return the same to the Secretary of State, who shall present the letters-patent, thus certified, to be signed, and shall cause the seal of the United States to be thereto affixed; and the same shall be good and available to the grantee or grantees, by force of this act, and shall be recorded in a book, to be kept for that purpose, in the office of the Secretary of State, and delivered to the patentee or his order.

Section 6. Provided, always, and be it further enacted, That the defendant in such action shall be permitted to plead the general issue, and give this act, and any special matter, of which notice in writing may have been given to the plaintiff or his attorney, thirty days before trial, in evidence, tending to prove that the specification filed by the plaintiff does not contain the whole

truth relative to his discovery, or that it contains more than is necessary to produce the described effect, which concealment or addition shall fully appear to have been made for the purpose of deceiving the public, or that the thing thus secured by patent was not originally discovered by the patentee, but had been in use, or had been described in some public work anterior to the supposed discovery of the patentee, or that he had surreptitiously obtained a patent for the discovery of another person; in either of which cases judgment shall be rendered for the defendant, with costs, and the patent shall be declared void.

21 Jac. I, cap. 3. An Act concerning Monopolies and Dispensations with penal laws and the forfeitures thereof.

VI. Provided also, and be it declared and enacted that any declaration before mentioned shall not extend to any letters patents and grants of privileges for the term of fourteen years or under, hereafter to be made of the sole working or making of any manner of new manufactures within this realm, to the true and first inventor and inventors of such manufactures which others at the time of making such letters patents and grants shall not use, so as also they be not contrary to the law nor mischievous to the state, by raising prices of commodities at home, or hurt of trade, or generally inconvenient, the said fourteen years to be accounted from the date of the first letters patents or grant of such privilege hereafter to be made, but that the same shall be of such force as they should be if this act had never been made and of none other.

SUPREME COURT OF THE UNITED STATES.

No. 107.—October Term, 1925.

The Alexander Milburn Company, Petitioner, *vs.* Davis-Bournonville Company.	On a Writ of Certiorari to the United States Circuit Court of Appeals for the Second Circuit.

[March 8, 1926.]

Mr. Justice Holmes delivered the opinion of the Court.

This is a suit for the infringement of the plaintiff's patent for an improvement in welding and cutting apparatus alleged to have been the invention of one Whitford. The suit embraced other matters but this is the only one material here. The defence is that Whitford was not the first inventor of the thing patented, and the answer gives notice that to prove the invalidity of the patent evidence will be offered that one Clifford invented the thing, his patent being referred to and identified. The application for the plaintiff's patent was filed on March 4, 1911, and the patent was issued on June 4, 1912. There was no evidence carrying Whitford's invention further back. Clifford's application was filed on January 31, 1911, before Whitford's, and his patent was issued on February 6, 1912. It is not disputed that this application gave a complete and adequate description of the thing patented to Whitford, but it did not claim it. The District Court gave the plaintiff a decree, holding that while Clifford might have added this claim to his application, yet as he did not, he was not a prior inventor. 297 Fed. Rep. 846. The decree was affirmed by the Circuit Court of Appeals. 1 Fed. (2d) 227. There is a conflict between this decision and those of other Circuit Courts of Appeal, especially the sixth. *Lemley* v. *Dobson-Evans Co.*, 243 Fed. Rep. 391. *Naceskid Service Chain Co.* v. *Perdue*, 1 Fed. (2d) 924. Therefore a writ of certiorari was granted by this Court. 266 U. S. 596.

The patent law authorizes a person who has invented an improvement like the present, 'not known or used by others in this

country, before his invention', &c., to obtain a patent for it. Rev. Sts. § 4886, amended, March 3, 1897, c. 391, § 1, 29 Stat. 692. Among the defences to a suit for infringement the fourth specified by the statute is that the patentee 'was not the original and first inventor or discoverer of any material and substantial part of the thing patented.' Rev. Sts. § 4920, amended, March 3, 1897, c. 391, § 2, 29 Stat. 692. Taking these words in their natural sense as they would be read by the common man, obviously one is not the first inventor if, as was the case here, somebody else has made a complete and adequate description of the thing claimed before the earliest moment to which the alleged inventor can carry his invention back. But the words cannot be taken quite so simply. In view of the gain to the public that the patent laws mean to secure we assume for purposes of decision that it would have been no bar to Whitford's patent if Clifford had written out his prior description and kept it in his portfolio uncommunicated to anyone. More than that, since the decision in the case of *The Cornplanter Patent*, 23 Wall. 181, it is said, at all events for many years, the Patent Office has made no search among abandoned patents, and by the words of the statute a previous foreign invention does not invalidate a patent granted here if it has not been patented or described in a printed publication. Rev. Sts. § 4923. See *Westinghouse Machine Co.* v. *General Electric Co.*, 207 Fed. Rep. 75. These analogies prevailed in the minds of the Courts below.

On the other hand publication in a periodical is a bar. This as it seems to us is more than an arbitrary enactment, and illustrates, as does the rule concerning previous public use, the principle that, subject to the exceptions mentioned, one really must be the first inventor in order to be entitled to a patent. *Coffin* v. *Ogden*, 18 Wall. 120. We understand the Circuit Court of Appeals to admit that if Whitford had not applied for his patent until after the issue to Clifford, the disclosure by the latter would have had the same effect as the publication of the same words in a periodical, although not made the basis of a claim. 1 Fed. (2d) 233. The invention is made public property as much in the one case as in the other. But if this be true, as we think that it is, it seems to us that a sound distinction cannot be taken between that case and a patent applied for before but not granted until after a second patent is sought. The delays of the patent office ought not to cut

down the effect of what has been done. The description shows that Whitford was not the first inventor. Clifford had done all that he could do to make his description public. He had taken steps that would make it public as soon as the Patent Office did its work, although, of course, amendments might be required of him before the end could be reached. We see no reason in the words or policy of the law for allowing Whitford to profit by the delay and make himself out to be the first inventor when he was not so in fact, when Clifford had shown knowledge inconsistent with the allowance of Whitford's claim, [*Webster*] *Loom Co.* v. *Higgins,* 105 U. S. 580, and when otherwise the publication of his patent would abandon the thing described to the public unless it already was old. *McClain* v. *Ortmayer,* 141 U. S. 419, 424. *Underwood* v. *Gerber,* 149 U. S. 224, 230.

The question is not whether Clifford showed himself by the description to be the first inventor. By putting it in that form it is comparatively easy to take the next step and say that he is not an inventor in the sense of the statute unless he makes a claim. The question is whether Clifford's disclosure made it impossible for Whitford to claim the invention at a later date. The disclosure would have had the same effect as at present if Clifford had added to his description a statement that he did not claim the thing described because he abandoned it or because he believed it to be old. It is not necessary to show who did invent the thing in order to show that Whitford did not.

It is said that without a claim the thing described is not reduced to practice. But this seems to us to rest on a false theory helped out by the fiction that by a claim it is reduced to practice. A new application and a claim may be based on the original description within two years, and the original priority established notwithstanding intervening claims. *Chapman* v. *Wintroath,* 252 U. S. 126, 137. A description that would bar a patent if printed in a periodical or in an issued patent is equally effective in an application so far as reduction to practice goes.

As to the analogies relied upon below, the disregard of abandoned patents however explained cannot be taken to establish a principle beyond the rule as actually applied. As an empirical rule it no doubt is convenient if not necessary to the Patent Office, and we are not disposed to disturb it, although we infer that originally

the practice of the Office was different. The policy of the statute as to foreign inventions obviously stands on its own footing and cannot be applied to domestic affairs. The fundamental rule we repeat is that the patentee must be the first inventor. The qualifications in aid of a wish to encourage improvements or to avoid laborious investigations do not prevent the rule from applying here.

Decree reversed.

A true copy.

Test:

Clerk, Supreme Court, U. S.